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OBSERVATIONS  
ON THE  
ORIGIN AND TREATMENT  
OF  
INTERNAL AND EXTERNAL  
DISEASES.







OBSERVATIONS



ON THE

ORIGIN AND TREATMENT

OF

INTERNAL AND EXTERNAL

DISEASES,

AND

MANAGEMENT OF CHILDREN.

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BY

*MR. HUME,*

ONE OF HIS MAJESTY'S STATE SURGEONS, AND  
SENIOR ATTENDANT OF MERCER'S HOSPITAL.

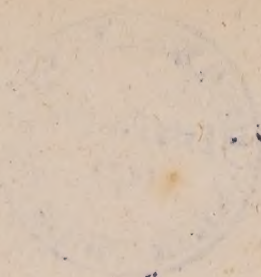
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1802.





ORIGIN AND DEVELOPMENT

GENERAL AND SPECIAL

DIETARY

MANAGEMENT OF CHILDREN

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TO  
THE PRESIDENT AND MEMBERS  
OF  
The Royal College of Surgeons  
IN IRELAND.

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IF a profession is to rank in public estimation according to its services to mankind, surgery indisputably must appear pre-eminently important. To you, Gentlemen, and the regulations of your College, are the public of this kingdom indebted for the rapid improvements in that branch of science, so apparent since your establishment as a body; and to the laudable exertions of the late Mr. Dease, and some of the present individual Members of your College, the surgeons in Ireland must gratefully attribute the elevated situations which are now held out to surgical merit.

Whilst



Whilst you, Gentlemen, persevere in your present system of education; while you are careful that none shall be admitted as apprentices, but such as are liberally and classically educated; while you continue watchful that the pupil shall, for five years in an hospital, at the sick bed-side, observe every degree of natural change in disorders, and every alteration produced by art, always more manifest in external than internal diseases, particularly where mercury, bark, and other energetic medicines are employed; while you take care that he must constantly attend to the different lectures of your school, at present equal to any in Europe, and follow the chemical and botanical courses given in our University; while you continue to enforce those salutary regulations that positively exclude him from practice, unless he prove under a very strict examination, that he has fully availed himself of the advantages I have enumerated, and is *bona fide* perfectly informed in all that is connected with his profession—what young man can be more fundamentally prepared for the study of physic, and in proper time, provided he is possessed of an observing mind, and studiously inclined, to become a sound practitioner? such practical facts as he has had an opportunity of remarking, and information obtained on seeing

ing



ing morbid bodies opened, shall prevent his adopting new systems, and of making experiments which at best prove ineffectual, and are frequently injurious.

Lord Bacon said, he was much surpris'd that there should exist a surgeon who was not a physician ; or that there should be such a character as a physician, who was not in part a surgeon : I willingly shelter myself under the name of this great man, to reprobate the assumed superiority of physicians over surgeons, and to object to all preference, except in knowledge, experience, and the talent of tracing diseases to their causes, the success in removing them, and in the humanity that should ever distinguish a profession designed by Providence to alleviate the miseries of man ; a further claim to superiority over any branch of the medical art, only tends to create discord, interrupt that harmony, and prevent that co-operation which should unite us all in forwarding this god-like work. How many are the instances in this and our sister kingdom, that beat down those absurd distinctions which misconceived pride, confined only to a few eccentric men, would set up as a jealous barrier between the two professions. It will create no envy in this country,



country, if I instance a most distinguished character\* in London, who was early nurtured under a surgical and pharmaceutical education, afterwards raised by merit and success to the highest elevation of medical celebrity, rendering the most essential services to mankind, and most amply remunerated; he is a man whose conduct might be held up as a pattern for imitation, with a suavity of disposition and urbanity of manners, that are ever attendant on real knowledge of human nature; he is the generous assistant of every endeavouring inexperienced practitioner: I feel myself personally indebted to his friendship; and the following tract contains many of his judicious remarks.

In my observations I freely range from surgery to physic; for external appearances and internal affections are so connected, that it is absurd to draw a line of limitation. I have dwelt much on the power of nature, in supplying constitutional defects, or relieving injuries offered to her; and have taken pains to mark where the practitioner may or may not, with advantage, interfere: it is a lesson he should never lose sight of, *quid natura faciat aut ferat*, is the grand rule to regulate all

\* Sir Walter Farquhar.



practice by. Those observations are the result of extensive practice and long experience; I hope they may prove useful, or at so late a period in my life I should not intrude them on public attention. To your humanity, Gentlemen, I commit them; you will consider that they are written by one who has not been in the habit of writing for publication; you and the public will please to receive them as the well-intended endeavours of him who regards the happiness of mankind, and who wishes to excite such ambition in the young surgeon for the acquirement of general medical information, that if appointed to the charge of a regiment, elected for the care of a country hospital, or suddenly called to any case requiring immediate aid, he might feel himself competent to act, till further assistance, if necessary, could be procured; also accurately to decide when operations are absolutely necessary, and where nature might effect her salutary purpose, without further interference of art: and in the eve of life, when the hand and eyes of the surgeon begin to fail, the judgment matured by observation should establish him a most useful member of the community. At the same time, due deference should be paid, and public opinion will

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will ever follow the long established and well-approved course of medical education, which has produced so many eminent physicians in both the former and present age.

I have the honour to be,

Gentlemen,

Your most humble servant,

GUSTAVUS HUME.



# P R E F A C E.

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IT is to be lamented, that men of the first talents for acquirement of knowledge in the medical and surgical art; from a laudable zeal, suddenly to relieve the afflicted, and too high conceptions of the efficacy of medicine, in their early practice, often under-rate the gradual, though critical operations of nature, to liberate the habit from diseases; and too frequently check or counteract necessary and salutary efforts, by the interposition of energetic medicines and measures. At the same time, we must admit the utility of a judicious administration of medicine, and the necessity for well-timed operations in surgery.

My present intention is to deduce many causes of disorders from their effects, and by evident practical proofs in some degree, to determine the  
specific

specific qualities and operation of such medicines and measures, as are now mostly employed; by which we might hope to simplify remedies, avoid many painful hazardous operations, and obviate the well-founded imputation of fashion, too much influencing the modern practice in physic, and sometimes in surgery.

Many important discoveries in mechanics and physic arise from accidents; natural philosophy afterwards perfects machinery, and chemistry proves how far the quantity and powers of medicine may be safely extended; but as the true knowledge of diseases and their cure, can only be acquired by reasoning a posteriori; or in a retrograde degree, and not by the adoption of new uncertain theories or systems. I mean merely to relate and arrange the facts which in a series of practice have occurred; with such conclusions as I have formed, claiming no further credit, or merit, than the authenticity of the cases, and small share of reasoning advanced on the measures to be adopted or rejected, may justly be entitled to.

The word acrimony is frequently introduced, by which I mean that state of the solids and fluids  
produced



produced by constitutional defect, existing either from inheritance or early acquired, principally giving rise to, or in some degree connected with most of the diseases which I shall hereafter treat of. Should this work afford any real information, I hope the use of such term \* may not prevent the reader from further perusal.

\* Should any reason be required for the adoption of this newly-revived name, I can only say, that in morbid habits, when an abscess slowly forms, the contents are generally found like curds and whey, particularly in young subjects; as if acidity produced from partial debility, causes similar effects in separating and coagulating human juices, as vinegar does when added to boiling new milk. We observe likewise that in youth of either sex, particularly males, who from constitutional and hereditary causes are disposed to future disease, the cheeks are often unnaturally flushed, as if acidity, created partly from pulmonic debility, gave such exquisite brightness to the blood. A similar effect from acids is exemplified in preparing an infusion of dried red rose leaves, which simply is of a dull colour, but on the addition of vitriolic acid, becomes a bright red. Hence the employment of mercurials, from their specific operation, become injurious in most stages of the constitutional maladies hereafter described.

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### ERRATA.

- Page 3, Line 13, for *embodied* read *imbodied*.  
13, — 6, for *appearane* read *appearance*.  
22, first and third notes, for *detenfive* read *deterfive*.  
101, — 1, for *calculous* read *cretaceous*.  
109, — 16, for *ascending* read *descending*.  
116, — 29, for *acid* read *acrid*.  
117, — 10, for *not* read *nor*.  
160, — 10, for *does* read *do*.  
195, — 6, read *or forcing*, &c.  
200, — 23, for *trochar* read *trocar*.  
216, — 2, note, for *jocolate* read *chocolate*.  
286, — last line, for *caution* read *observation*.  
113, — 8, note, for *I have known* read *I have visited*.



## ORIGIN OF DISEASE.

THE primitive constitution of man being now so much changed by hereditary disease, discovering itself in various forms, variously connected with, and as variously modified by disproportion, defect, or debility; the management of complaints, in such habits, should at least vary from the practice employed before this contamination had become so common amongst all ranks of people. I flatter myself that our enquiry into the probable origin and causes of such imperfections, as well as of the symptoms thereon attendant, may be of use to young men entering on the practice of physic and surgery, in distinguishing, thus, the simpler from the more complicated forms of disease. It may also furnish salutary advice to parents in the rearing of children, and help to reconcile advanced life to bear patiently, what are but the natural effects of constitutional causes.

The successful treatment of disorders in general, has for its object, either to correct the  
B    juices

juices by supposed specifics, or, by supporting and assisting the habit, to enable the purer parts to reject the diseased.

To confound these distinctions in medical or surgical practice, must be as injurious as ineffectual. For, if acquired disease be not quickly restrained, corrected or subdued, the morbid leaven may so contaminate the entire habit, as to leave the chance of recovery doubtful, at least, render the process necessary to the obtaining a cure much more tedious; whereas, in complaints, whose existence is founded on, or the intensity of whose symptoms is aggravated by original or innate debility, whether partial or general, and where the weak solids and attenuated fluids are but faintly endeavouring to accomplish the salutary purpose of nature, the same active measures might so reduce\*, counteract, and depress vital exertion, as that we never should be able to restore our former state of equipoise.

Disorders which are infectious by contact on the surface, soon tainting the juices; many inflammations too, particularly of internal parts, come under the first head; within the latter description we may rank general relaxation of the solids,

\* Bloodletting in putrid fevers, or overpurging in inflammations of the lungs, attended by salutary perspirations and expectoration, would prove fatal, in many cases which, if left to natural exertions, might recover.



solids, vascular and glandular debility, and consequent obstruction, with every species of hereditary disease, most of which must have commenced from the impaired original health and vigour of parents, bad suck, improper nutrition, defect of necessary warmth\*, and want of cleanliness and attention in rearing the offspring. For we must suppose man, in his original state, to have been without disease, such except as the periodical changes of the seasons necessarily produced; these, necessity and observation soon taught him to provide against. But, when he became an embodied warrior, hired to plunder and slay his neighbouring fellow-creatures, a new and unexpected series of calamities await him. Behold him now amid the din of arms, surrounded by innumerable deaths, the alternate slave and victor; at once assailed by passions, at once involved in situations the most discordant—peril and escape; famine and feast; heat and chill; repeatedly wounded—Thus do his better days roll on through scenes of tumult, confusion, struggle, and distraction; till at length, worn down, he retires from his toils, to taste the sweets of ease; he sinks into a state of inactivity; he marries; and, perhaps, for support prefers wealth to health and youth. What are we to look

\* The limbs of all young children ought to be kept warm, particularly when taken into the open air, which should be done whenever the weather permits.

look for in the enfeebled progeny\*? Here, then, have we arrived at one of the primary sources of hereditary taint; the children of such parents were naturally prone to diseases arising from debilitating causes; and hence the frequency, particularly in some northern countries, where these and other such causes were most common, of obstructions of various kinds, debility, early deafness†, asthmatic affections, wasting of limbs, epilepsy, different diseases of the eyes, dropries of the chest and brain, and what is termed hereditary decline: all which I consider as proceeding from taint, thus or otherwise produced in former, and handed down, and becoming fixed, or, as it were, original in succeeding generations. For, though glandular swellings, abscesses, either external or internal, enlargement and caries of the bones, be considered the principal criterions of an acrimonious habit, yet they are so, only inasmuch as they are symptoms of such morbid affection in its most exquisite degree, whilst those other defects

\* In addition to the disadvantages and impair of constitution which arise from a severe military duty, our Eastern and Western possessions have greatly contributed to break down the constitutions of modern soldiers, and to prevent early matrimony, which is so necessary to ensure health in our posterity.

† This is generally attended by a foul discharge from the inside of the ear; the part should be mildly deterged, but the running not checked; which often ceases when the child becomes more confirmed in constitution, so as to bear cold-bathing.



fects as certainly indicate so many shades of the disease in its more latent, or less virulent forms. Hence a cause, why the youth of both sexes drop off in declines; genius, too early ripe, becomes dull; insanity breaks forth at particular periods, and the sooner when the seeds of such primary contamination are brought forward by accidents\*, or general maltreatment of constitution.

Let no family, then, blush to confess that hereditary complaints appear and continue amongst them, except they can prove that none of their ancestry had ever aspired higher than the humble though healthy situation of a farmer, gardener, or shepherd. Even in the lowest walks of life, where early accidents† frequently occur, especially

\* Great losses by play or in trade; ambitious views unexpectedly blasted; honor injured, without opportunity of justification; and among females, early attachments suddenly broken off, either by death or control of parents, and sometimes where a fever comes on after delivery of the first child.

† I recollect a gentleman of a delicate frame, who, when very young, met with an accident in his right leg, from which the limb diminished and became feeble; one of his children had a short and weak arm, another was affected in both legs, though no hereditary disease was ever known to have existed in any branch of either his or the wife's family.—I observed similar defects inherited by some of the produce of a running horse, whose shoulder had been dislocated at four years old: I mention this circumstance in a brute, to prove, that the imagination, in such instances, does not operate as in cases of hare-lip, or particular marks from fright and surprise to a pregnant

cially in great towns, or in situations remote from surgical aid, the young of either sex, thus deprived of the due proportion of air and exercise, become first debilitated, ultimately diseased; which once happening, especially if any particular part be for a long time affected, the malady is too certainly transmitted to posterity. Again, unexpected famine \* obliging wretched beings to subsist on damaged food, or to devour such adventitious sustenance as never was intended for the general nourishment of man; the juices, naturally healthy, became altered, corrupted, and prone to languid obstruction and disease, manifesting itself in the hapless offspring: for the habit, whether reduced and impoverished,

or

pregnant woman.—I now visit a family who have been all web-footed for some generations back, arising, as they say, from a great grand parent being scalded in both feet when an infant, and the toes suffered to adhere.

\* When population encreased, the objects of society and self-defence tempted men to erect cities and surround them with walls; their hostile neighbours soon commenced sieges, which must have been protracted from the art of making gunpowder not being known; during which blockade various new diseases broke out both in the camps of the assailants and among the besieged; many of which, and their sad consequences, continue to the present day: it is well known that the Small Pox, which, in its extreme degree, is the most putrid of all diseases, never appeared in the known world until the year 650, when Alexandria was besieged by Omru; this disorder then broke out from corruption of air and deprivation of fresh water, and ever since has existed in all parts of the world to which it has reached.



or furcharged by luxurious plenitude, is equally, though from opposite causes, impeded in the healthy formation of the tender foetus. We find that, in countries where the spinning of linen-yarn is practised, the female, by wasting the saliva at the wheel, neither can nourish her child so well, during the months of gestation, nor can she so wholesomely and plentifully suckle it when born; whilst the man, by close sitting at the loom \*, gets a contracted chest and swelled legs; and hence the offspring of such parents are observed to be, in general, pale, weakly, and prone to glandular and visceral obstructions. Of late years, however, this has been much corrected by the weaver becoming in part a farmer†, while the wife attends occasionally to the milking of her cow, and other domestic employments.

\* It is rather to be lamented that linen yarn does not work well, except the loom is placed in a damp apartment, which is, certainly, most unfriendly to the chest and lungs.

† When the young males of any country, are early and constantly employed in manufactures, particularly of a refined kind, where there cannot be much bodily exertion, they do not increase in muscular powers; consequently are liable to be conquered by neighbouring nations, who are more robust and less industrious; therefore a war sometimes, is rather an advantage, as it releases youth so confined, in the commencement of which, so much vigour cannot be expected, as afterwards is experienced; hence the danger of surprise by invasion; however, the commerce of Great Britain, together with due attention to agriculture, in a great degree countervails this disadvantage.

ments. Among the higher female rank of our ancestry, confinement of frame, and restraint of natural appetite, in order to ensure delicacy of shape, added to the bad effects of a sedentary life and late hours, had reduced the natural and sanguine complexion to paleness and languor, which could not fail to produce a weakly, if not diseased progeny.

Of later years, venereal contamination has been supposed to have laid a foundation for acrimony in succeeding generations, or at least to have been the cause why it is now more frequently observable than formerly. But, as mercury is the only known specific for that disorder amongst us, and scarcely, if at all admissible in most stages of this; I rather think that it is to the remedy, not the disease, we are to look for the increase of acrimonious habits: since the introduction of this poison amongst us, the constitution of the father, reduced\* by the means necessary for its cure, together with a loose life led before matrimony, having so far impaired† the natural habit,

as

\* Where mercury has been too long employed with intention to eradicate venereal virus in cases of ulceration, the fores daily acquire a worse appearance, therefore are not improperly called Mercurial Ulcers; and are only to be cured by supporting the habit, and discontinuing all mercurials.

† When glands become obstructed, from venereal contamination, they are more or less weakened; consequently the children of parents so infected may be prone to obstructions  
in



as to produce in the offspring some degrees of the complaint in question, and so give rise to such an opinion. On the whole, I am inclined to attribute this increase, at the present day, more to restrained eruptive diseases, small-pox particularly, which may be effected by too reducing preparation, or frequent purging counteracting the natural maturing tendency, or unseasonable exposure to the open air and cold, whilst the eruption is coming out. Such causes will have operated more especially, where the infection has been given at a very early age, and before the solids were sufficiently confirmed to throw out the disorder so completely as to secure the infant from future bad consequences. These we are daily witnesses to, and they are only to be got the better of by such generous regimen as is found salutary in acrimonious habits, and precisely the opposite to that which we should employ, where we had reason to suspect venereal virus to exist. Besides, in the inheritance of this latter disease, children shew it in some form or other, shortly after birth; in cases of hereditary acrimony, generally not for years.

It has been observed that intermarriages \*  
among

in those particular parts, from debility, though not any of the original virus existed in the habits of either parent.

\* I have remarked that children produced from natives of Ireland and those of the Southern parts of France, or some  
other

among natives of different climates, differing in complexion and stature, create vascular and visceral disproportion in the offspring, and consequently partial defect, debility and disease; the greater, the more distant and unlike to each other be the climates, the inhabitants of which thus unite. Accordingly, the European and the Negro produce the shortest lived, and most unhealthy offspring. We see, on the other hand, in this and particular parts of our neighbouring kingdoms, whole colonies of natives, who continue to intermarry amongst each other, and produce strong and wholesome children. Doubtless, a foreign union may often be more political in point of connexion, and may produce more mental acuteness, which is sometimes observed to accompany weakly and ill-formed limbs; yet I consider those very uncommon talents, with delicate

other warm climate, were subject to repeated attacks and complaints, 'till such period as the constitutions of each parent, which were united in the offspring, became perfectly assimilated; afterwards, at certain ages, a good degree of health was established, though many so produced were subject to the gout or scurvy; and generally possessed of acute mental abilities.—The breeders of horned cattle in Great Britain, prefer those bred between brother and sister, to such as come from a mixed strain, by this management the original size and form is preserved, which are the principal perfections in a brute animal designed chiefly for the nourishment of man; but, in the breeding of horses and hounds, where powers, spirit, and performance are required, a judicious cross becomes necessary.



delicate or disproportioned frames, not likely to last long, nor always to descend to their children. I have, more than once, remarked a finished statesman to beget a fool; and a ploughman, father to a first-rate genius: and though we sometimes see characters full grown in both body and mind, at the natural period of maturity, and particular parts\* uncommonly perfect in parents, descending equally so to posterity, yet we find that the inheritance of disease is our more certain lot.

\* How inferior were the talents of Richard Cromwell, when compared with those of his father.

## CHAP. I.

IT may, then, be supposed, without offence to any rank of people, that either from their own course of life, or that of their parents, children may be born with such appearances and forms, as shall in some degree produce, at least lead us to suspect, glandular or visceral disease ; and though no absolute or specific remedy\* has been hitherto discovered for such diseases when so formed ; yet I flatter myself, that, by a strict investigation of their primary source, as well as of the accidental causes which afterwards favour their increase, and a regular attention in avoiding these, we shall be enabled, if not to conquer, at least to restrain this hitherto invincible Proteus.

We might hope that if an extremely healthy male or female were married into an acrimonious family,

\* The sagacity of medical practitioners, aided by accidental discoveries, has furnished mankind with remedies which are considered, in some degree, as specifics for the cure of acquired diseases ; but, to subdue complaints, which form in the habit early in life, requires time and regimen ; here, therefore, medical aid comes in only to assist the natural powers, by increasing defective secretions, or substituting artificial discharges, the operation of which must be slow ; and it is to be lamented that energetic medical treatment, is generally persisted in for too great a length of time ; regimen seldom adhered to long enough.



family, the morbid constitution might be so overbalanced by the founder, as not to shew itself in the children, the fact however is, that such an union with purer blood, in general only accelerates the progress of the complaint to maturity, the mode, time of appearance, and event, being doubtful\*, as there arises in part a newly created disorder in the offspring. Whereas, in families, where both parties have been originally diseased, the infection in time becomes torpid, and though it still exists, yet shall not appear outwardly for an entire generation, when different shades of it may again arise from the same mismanagement, errors, or other accidental causes†, which we have heretofore pointed out.

I have

\* All new diseases are more fatal on their first appearance than in future.

† Botanists agree that variegated holly, and other plants with that appearance, were first, and can now be produced by a particular management and impoverishment of soil, creating what may be called a disease: yet, we observe that many of them are healthy, though retaining that variety, which is not natural, as appears by such trees being propagated only by slips, and not from seeds. It is also observed, that if a plain branch or sucker shoot out, and be not checked suddenly, the variety of the entire tree diminishes daily; which will also happen by the constant use of rich manure, the original colour being restored. So we might hope that if fresh causes were not afforded, the malady we speak of, by proper management, might yield to that natural healthy tendency which prevails throughout the entire creation, and die away.

I have observed, that where, at the time of puberty, the disorder had been seemingly exhausted by different suppurations, such youths of either sex are not so likely to breed acrimonious children, as those of families, in which, from appearances and symptoms only, it may be judged to exist, never having shewn itself outwardly. I must here remark, however, that though we might be induced to regard the appearances above mentioned, I mean of natural suppurative discharges, as unequivocally indicating final or complete recovery, especially as we observe such crisis usually followed by a seeming renovation of health, regained strength, and revived complexion, yet the progeny of such parents is, when very young, in general liable to eruptions, which may be regarded as spent remains of un subdued acrimony, and which, for the reasons before stated, it would be dangerous to repress or check.

When before matrimony, the constitution of a male is injured by intemperance, though it have been naturally sound, his first-born children may be unhealthy, and those of a later birth, stronger, and more free from complaint; owing to the father's pursuing latterly a more regular course of life\*. But where, on the contrary, hereditary disorders

\* This observation holds good in the breeding of horses, where the health of a sire is reduced by physic, and other training



disorders exist, the first born of such parents are stronger and less diseased than those who are the produce of later years.



## CHAP. II.

WE shall, then, take up the child at its birth, with such fears and doubts, as all young parents ought to entertain in the present age. The first object of our consideration is, with regard to the food whereby it is to be supported. This is pointed out by nature; the mother's \* suck is certainly the most proper nourishment for her own infant, and what every young married woman ought to attempt giving; by that natural course, the vessels

training preparation for the prize : when he is first let to breed, the get are weakly and unpromising ; but having regained constitution, by being turned out to pasture, and taking only natural and necessary exercise, the salutary effects then appear in his offspring.

\* When the upper classes of women undertake suckling, they become more domestic, consequently less likely to enter into the incorrectness of the present age, finding themselves more closely attached to both husband and infant : besides, after the period of weaning, the constitution experiences all the sensations of a new marriage. And they who nurse, seldom miscarry.

sels and glands of the breast are so regularly employed, as in future to be less disposed to obstructions, which sooner or later might terminate in cancer. This disease does not so often arise among the lower order of women, owing, I suppose, in a great measure, to early matrimony; the milk thus taking its natural course, which, if repelled, though it is too much indeed the present custom, often brings on the worst of consequences \*. I have seen a violent inflammatory fever, in this manner produced, attended with delirium, which lasted for twenty-one days, in the case of a young lady, in all other respects before perfectly healthy; and canine madness in a brute, owing to her pups being suddenly drowned whilst the udder was distended with milk. In short, whatever be the secretions, pure, natural, and salutary, or otherwise, which the constitution points to discharge, the same being suddenly restrained or repelled, equally bad consequences will arise in the habit as would have followed the introduction of any foreign and noxious humour; and though some constitutions may escape, yet the experiment

\* On suddenly repelling her suck, a lady became feverish, and a delirium commenced, which continued for upwards of thirty days; during which time, she sang, perpetually, songs of her own composing: reason, at last, returned in consequence first, of profuse perspirations, afterwards copious evacuations by the bowels,



experiment is dangerous \*. Besides, the human body is so formed, that one part assists another in the operations of nature, consequently there is a necessity for reciprocal action and rest; whilst the womb, lately in a state of distention for many months, is thus allowed rest sufficient to recover its former tone: whereas, when there is an annual repetition of pregnancy, the parts so distended, sooner lose their elasticity †, and become, at length, perhaps diseased, which especially happens in cases where the original habit has been weakly.

Another very particular reason in favour of the mother's nursing, is, that the hireling nurse, hoping to save something from her late preferment, puts her healthy child out on the cheapest terms she can, where poverty and bad nutrition ‡, either

\* However, if the female, in order to preserve fuller breasts, chooses to venture, no other repellant than plain spirit should be used: vinegar, though generally employed for this purpose, suddenly conglutates the milk, and is therefore not so safe.

† I recollect having a hen that laid ninety eggs without inclining to set or clock: the egg-bag, as it is called, lost its contracting power; it filled with water, was tapped, and she died. How far her not having a cock might have occasioned her being so profuse, and not sitting, I leave for others to decide.

‡ This is a great cause for the increase of acrimony. It is a well-known fact, that the better any young animal has been fed, the more liable it is to become diseased, on being suddenly

either terminate its life, or leave the infant diseased, and a future burden on its parents or the public.

However, as it sometimes happens that the giving suck for a continuance is found to be a greater waste to particular constitutions, than a state of pregnancy, and also as the present mode of life in the higher ranks, must render those who so indulge, incapable of bringing forward strong or healthy children in this way; the practice of nursing\*, amongst certain constitutions and ranks of people, cannot be so generally successful as could be wished. Such considerations obliged the people of England to make use of the spoon; and how far this artificial mode of rearing children may ensure life and freedom from disease, time alone can prove. At all events, the experiment is in itself a safe one, provided

suddenly deprived of its accustomed salutary sustenance: the experienced grazier never changes his very young stock from a rich pasture to inferior grounds, knowing the almost inevitable injury thereby done to his cattle. It is to be wished that no woman should seek for a nursing until her own child was at least five months old, when it might be weaned; and though milk of that age is considered exceptionable; yet the poor man's child being of equal consequence to the state as the highest born, the general good end in the community would be answered.

\* If the milk is thin and sweet, it is wholesome for the infant; and the giving it is not so likely to weaken the mother, as where milk is thick and saltish, which is often the case in delicate constitutions.



provided the nutriment\* so given be not too rich; yet, for the reasons above stated, a wet-nurse should always be in our power to procure.

How far acrimony may be acquired by a child sucking the breast of a woman who has had marks of that disorder having existed, though now eradicated, is not clearly decided; and, except another nurse could not be found, I should not advise the experiment to be made. So far as regards my own observation, however, it would appear that the disease is not this way transmitted; for, I have known women to breed acrimonious children, whose milk, while of a proper age, did not contaminate those of healthy parents, which they nursed for hire. Yet, that the milk of the nurse does, in some degree modify, if not produce, the complaint in question, we have reason to suspect, when we see so many instances of glandular debility, and consequent obstruction† arising, in children of the most healthy

\* It is proper to use a small quantity of sugar in milk prepared for the nourishment of an infant reared by the spoon; as nothing can exceed the sweetness of fresh breast-milk, in a sound constitution.

† I seldom knew an instance of a person being decidedly of an acrimonious habit, where the blood-vessels were not more minute in many parts, than sufficient to produce a permanent and healthful circulation through the entire body; and the commencement of obstruction and disease is in proportion to the original defective formation; there-

healthy parents, from an intemperate nurse, or old suck. These, though, I would refer to the article of mismanagement before insisted on, from which, as well as by original hereditary taint, various shades of this complaint will appear in children, being in the one case acquired, in the other organic. Freshness of suck, as well as temperance of manners and conduct, are therefore to be strictly attended to in our choice of a nurse; and as far as regards appearance, the woman of a full make, and rather low in stature, is to be preferred to one of a finer complexion and more elegant form, who is more likely to be the offspring of luxury and debility.

fore, artificial means to strengthen the system, are what we should employ; whereas, in complaints whose existence and rise proceed entirely from vitiated fluids in an habit previously healthy, moderate relaxation and dilution in aid to medicine, produce a cure; the first disorder being partly organic and constitutional, the second to be acquired; from which I suppose that the hereditary disease we treat of, could not be produced even from inoculation with acrimonious matter.

## CHAP. III.

WHILST the infant is sucking, eruptions with very equivocal appearances, and in various quantity, often present. These I consider as indicating the presence of acrimony in the fluids, which nature thus endeavours to vent. We should, therefore, not repel, but rather encourage such natural efforts in the constitution; as thereby the acrimony shall be the sooner dislodged and exhausted\*. Such as shall appear on the face †, are the most dangerous to restrain or check;

\* For all such eruptions I recommend warm washing, night and morning; and if the parts require dressing, no other than wax and oil should be applied.

† In many of those cases, the eyes close, as happens in the confluent small pox; at which the parents are alarmed, fearing loss of sight, and use preparations of lead, to abate the inflammation: from the repelling quality of which applications I have known a dreadful attack on the chest; for all humour becomes more morbid when repelled, than if allowed gradually to abate of its virulence where it commenced, yet experimental practitioners flatter themselves that the situation of complaints may safely be altered, and that artificial drains in less inconvenient forms and parts, shall answer as substitutes for natural discharges already established, which practice seldom answers, nor is it always safe to try. It has been observed, that where a spa well was found to be inconveniently situated, the proprietor broke fresh ground in a more commodious spot; but, by such change in situation, the original spring was lost.



check; and though they give the parents most uneasiness, yet when not tampered with, seldom leave marks, or continue longer than salutary. In all such cases, it is injurious to use powerful alteratives; we should thereby prematurely counteract this salutary effort of the constitution: our principal attention should be to an open state of the bowels, warm bathing, diet, regularity of the nurse, and quality of her milk. Where humour of any kind appears on the head, such should be encouraged; a discharge from that part\* being more critically favourable than from any other. It is proper to cut off all the hair, then put on an oil-cloth cap, using no other wash than warm water, or soap and water. If the appearances be very putrid, chamomile tea should be employed at times; sudden healing not being the intention. All these cautions extend only to what may be considered efforts of the constitution, and not to appearances produced by accidents or uncleanness.

At an early age, foul eruptions often present behind the ears, which suddenly run into holes, threatening immediate † mortification. To counteract

\* A discharge from the scalp, comes sooner to a matured state, than from any other part; seldom continues too long; and the more it is drawn, the less probability there is of its turning to what is called a scald head.

† In all such cases it is best, after warm washing, to apply detensive ointments, and not to commence the use of bark,  
fo

teract this tendency, a use of the bark and wine internally, is often necessary : a decoction of the bark may be used, at the same time, as a stupe or wash; however, I have found equal parts of port-wine and water, warm, to answer better for a continuance, being less astringent and more animating\*. If any of the glands of the neck should become enlarged from the drying effects of such a wash, it should be discontinued, and the common chamomile stupe used; the parts should also be dressed with the Linamentum Arcæi†, to which, when melted, a small quantity of spirit of turpentine may be added.

We sometimes observe similar eruptions, about the same period, communicated to the nurse,  
when

so long as we can avoid it; as locking up humour is dangerous, particularly in situations where the habit, in health, affords an exudation of what is more rank than general perspiration, especially if small-pox, measles, or any infantile disorder had lately existed.

\* I have also experienced the greatest benefit from fusing the part with hot salt-water, as highly opposing the further putrescence; at the same time, paying proper attention to cleansing the part by detensive ointments, as a continuance of the salt might prove too astringent.

† This ointment is both warm and detensive, and prevents any disagreeable smell which generally attends those ulcerations, particularly if what are called healing applications are too soon applied: wherever the discharge from any sore becomes offensive, the most detensive dressing should be put on.

when the disorder is, not unfrequently though very improperly, supposed to proceed from itch; and ointments composed chiefly of sulphur, have been accordingly used, to the very great injury of both nurse and child \*. If, however, the complaint commence on the nurse, we should not delay the use of sulphur on the surface of both nurse and child.

\* When the eruption is obstinate, provided the child has sufficient strength, I advise weaning; having often observed, that children reared by the spoon, are less liable to breaking out, than those who are suckled. In all such cases, when we use the sulphur ointment, warm-bathing should not be omitted: I generally advise the bath and rubbing alternately; and after the process is finished, to continue bathing for many nights, provided it is not found too relaxing. On the whole, where the eruption affords a copious watery discharge, suddenly restraining such by rubbing, is unsafe.



## CHAP. IV.

WHEN an inflammation, neither *Endemic*, nor produced by cold or any other obvious cause, attacks the chest of a child on the breast, we may suspect it to arise in consequence of a constitutional acrimonious habit; in which cases, consumptive complaints, with tubercles in the lungs, frequently follow such inflammations at some future period. Now, though bleeding, in acrimonious habits, is, in general, not salutary; yet, in cases of such imminent danger, we must have recourse to the lancet; and, a repetition of the blood-letting, may, perhaps, be necessary; but, as it is not always easy to find a vein in the bend of the arm, at so early an age, that operation is more readily performed on the back of the hand. An additional advantage arises from this part being chosen, that the immersion of the hands, which is so useful a preparation to the letting blood from that part, will, of itself, give relief. On this principle, I recommend to the young operator, not to be in a hurry; for veins shall fill in five or six minutes after immersion, which at first were obscure and flacid. If the distress do not abate, a moderate blister\* should immediately

\* There is much danger in applying too large a blister between the shoulders, as the infant generally sleeps on its back,

immediately be applied between the shoulders, that situation affording more discharge than any other part of the body, and being sufficiently near to the supposed seat of the disease: the anterior side of the chest is more in action; of course, when blistered, is more painful: and as the skin continues in a tense state for some time after the blistered part has been healed, the child may acquire an habit of bending forward, which is injurious both to the shape and freedom of the chest, particularly in females. If a repetition of the blistering be found adviseable, I should have less objection to a long narrow one on the sternum, than on either side of the thorax; as in very young subjects, there is danger of creating too much irritation, and consequently of encreasing fever, by applying blisters\* close to each other. After the second blister has ceased to discharge, particularly if the child be not relieved, and the inflammatory symptoms still continue, it will be adviseable to make an  
issue

back, which presses on the blistered part so much, as sometimes to occasion a mortification, particularly if the juices are in a bad state.

\* One great intention of blistering Children in cases of inflammations of internal parts, is to obtain a discharge; therefore, the most drawing ointments should be applied, by which we may hope to avoid the pain and irritation of a second blister; however, attempting to keep on a discharge by perpetual ointment, except on the head, never should be practised; it frequently, in young irritable habits, brings on convulsions.

issue in the arm. This practice, though formerly too indiscriminately used, has, of late, been much neglected, and with very great injustice; for, if we have reason to apprehend a tendency to internal formation of obstruction, there is some chance that an external artificial suppuration might contribute to prevent what could not be so readily discharged, if once formed internally. The mode of performing this seemingly trifling operation, is of no small consequence. Let an incision be made of sufficient length; fill the aperture with formed lint, or a pea\*; which, though you remove the outward dressing on the second day, is not to be taken out for four days, by which time, the doffel or pea will have irritated the wound so much, as to bring on nearly a natural inflammation and suppuration. The good effects of such management are seen in cases of inflammatory attacks of the eyes, when we wish suddenly to divert an inflammation from so delicate an organ, in which its continuance or tendency to suppurate, would produce such dangerous effects; and, as suppuration is the most  
finished

\* On making an issue in either the arm or neck, I always pinch up the skin between finger and thumb, to make it rise full; by which the part is rendered insensible, and no risk is run of sinking too deep. I cut from above downwards, which gives much more power to the hand of an operator. Be sure to make the incision large enough to receive the pea or lint, with ease; otherwise fever will come on: too small an opening, being like a punctured wound requiring dilatation.



finished crisis of inflammation, we can thus exterminate, with greater certainty, the seeds of the original disease, by bringing on our artificial one so near to the part first affected, and in so considerable a degree, as that we may expect a removal of the complaint from that delicate organ, in which it threatened to advance.

## CHAP V.

WHEN the period of weaning approaches, I recommend to the nurse, not to give the breast to the child so frequently as before: she may discharge the redundant milk into a cup, and feed the infant oftener.

I recollect having attended to the instinctive management of a monkey, when her young one became about six months old; she suckled it but once a day; afterward, every second day; then, every third, only; and so on, until at length she refused it entirely. This I mention as a hint, which might, in some instances, be of use. After weaning, should the child become costive\*, and grow feverish for want of the nurse's milk, which is rather of an aperient nature, the body is to be opened with manna, oil of castor, or magnesia, to any of which, in order to remove flatulence, a little fennel-water may be added. There should be a reasonable repetition, until the symptoms abate, and the bowels become regular;

\* When we consider how inattentive servants are to the proper diet for children, who have a natural wish to eat of every thing they see, it may be supposed that many infantile disorders arise from overcharge; consequently purgatives are most necessary at an early age.

gular; yet we are sometimes obliged to use a small quantity of calomel, which, to a certainty, carries off what the other purgatives could not remove.

The conduct and aliment of an healthy child ought to be as simple as possible; little animal food should be given until the entire number of teeth is nearly completed; and then there should be a sufficient proportion of bread used along with it, which had better be at least one day old; or, at times, potatoes; taking care to add salt, in order to prevent the generation of worms. Too much rich food, especially flesh meat, at so early a period, may occasion an overgrowth of the liver\*; as is the case in highly-fed fowls, and other young animals pampered for the luxury of man: at all events, such indulgence lays the foundation of bilious disorders, and creates appetites, neither consistent with health, nor suitable to future situations in life. But, though I draw certain lines as to the quality, yet I should *not restrict* children *in the quantity* of whatever *food* is found proper for them. They should be *moderately fed* on plain vegetable aliment,

\* What graziers call the Black Leg, so fatal to calves when turned into too rich pasture, is a settlement of bilious black blood in the right hind leg, often extending up to the kidney; on opening the part, a mortification is discovered. This disorder seldom takes place when the animal is not too richly fed. Therefore the cause may be supposed to exist in the liver and Vena Portarum.



aliment, which will gradually afford nutriment to those parts which we want to supply, without too violent an excitement of the animal powers: for, wine, and other articles of stimulant diet, would here only serve to accelerate the circulation, and force temporary spirits to be again succeeded by a debility of that organ on which they had immediately acted, and a general languor throughout the entire frame. Hitherto our observations regarded such children, as were born free from disease; but, when there is the slightest suspicion of hereditary taint, our course should most essentially differ from the plan above laid down. A certain share of animal food and wine becomes necessary to support and warm: we thus alter cold languid juices, and relaxed solids, so as to enable the constitution, by some vigorous and critical exertion, to rid itself of a burden, which would otherwise, in time, become fixed and diseased. We observe among the lower orders of mankind, who live poorly and are badly clothed, that this complaint lies dormant until a later period of life, and then discovers itself by large deep-seated abscesses, polypusses in the nose, tumours on the joints, fullness and caries of the bones, or wasting of a particular limb. Whether it is lightened in hot countries\*,  
by

\* In most warm climates, we find the children are beautiful and healthy when very young, though they do not continue to improve in proportion when advancing in growth;

by a more liberal perspiration, or the use of wine, or both, is not certain; but as that liquor, particularly in its purity, never can become a general drink, and cannot, without great difficulty, be had amongst the lower classes of people, we must content ourselves with such sustenance as the country affords, taking care to give also as much external warmth to the limbs, especially if naturally delicate, as can be procured, which may contribute to throw out, and exhaust on the surface, what would otherwise lie torpid, and in future break forth in the manner already mentioned. Occasional cold bathing has been much insisted on, and certainly has its advantages, particularly in countries where the poor are not disposed to cleanliness; yet it may be, and often is carried to too great an excess: for I hold that regular secretions by the skin, which are thus sometimes repelled, have a great effect in wasting and exhausting this disease while endeavouring to form itself.

It might be supposed that diaphoretics would prove a substitute for that perspiration so natural in warm climates; by such medicines, no doubt, the surface could be kept almost continually in a forced state of moisture, yet those active measures

growth; I suppose the change may be owing to a scarcity of milk, which is so necessary at an early age; the potatoe, too, an excellent succulent food, is not much cultivated in countries abounding in corn and fruits.

fures would, in the end, reduce the blood already too weak. Warm covering, therefore, within proper limits, and not carried to such a degree as to produce relaxation\*, is what we can most safely rely on.

A removal to a warmer climate has been found useful in many infantile diseases, but generally, I presume, in those cases where there had been no appearance of matter being already formed; for, that having once taken place, I should fear that the increased heat would only further reduce, and so be injurious. Yet it cannot be denied that, even in some of the most hopeless cases, a change of air† has produced most wonderful good effects.

\* Cool fluids, which have been boiled to prevent the generation of worms, are more wholesome than when taken hot or crude, particularly in weakly habits.

† In such cases, I would rather recommend our dryest mountain air, with goats whey, taken on the spot.



## CHAP. VI.

AT what period of life, glands shall be most prone \* to become obstructed, or abscesses to be formed, is not by any means certain. Should such appearances be preceded by fever, difficulty of respiration, or sense of unusual fulness weight, or general oppression; we may suspect them to be the critical efforts of a morbid habit; to oppose which, would be highly dangerous. Cold, therefore, should be as much as possible avoided; our intention being to assist nature in the expelling such noxious matter, and through that channel which she thus points out to us.

\* Where the seeds of hereditary acrimony are known to exist, a cough and periodical fits of difficult respiration often come on, which we should be cautious not to do too much to abate by reduction, particularly if the pulse is not greatly disturbed, as such symptoms frequently precede glandular suppurations, salutary abscesses or eruptions, which, if the constitution is greatly reduced, might never come forward, consequently a decline would commence, and tubercles form in the lungs.

## CHAP. VII.

WHEN a tumor, not entirely glandular, comes forward, appearing to contain much matter, and becoming quite soft, without bursting, there may be reason to apprehend a resorption of the matter so retained; in such cases, then, a moderate\* opening should be made, which may be done by either the lancet, or the application of caustic.

\* Modern practitioners are of opinion that great danger arises from such an opening as shall admit air into a cavity, occasioned by the formation of matter; and accordingly recommend only a small incision or puncture to be made. This, however, neither discharges entirely the morbid contents, nor sufficiently unbraces the cellular membrane so distended; and, in consequence of such practice, I have known a fatal fever, from the absorption of the remaining matter, or the violent irritation of the part thus wounded. There are, however, exceptions to this rule, as in abscesses formed in the pelvis or thorax, where particularly in the latter case, if the opening were large, the admission of air into the wound, might endanger life; but what we are chiefly to guard against is the exposure of denudated surface; for, if air was always to rush into an aperture so made, the smaller it was, the more forcibly would it enter. If possible, let the incision not require enlargement; therefore, use a broad lancet, and commence at the inferior part; so, by one bold extension of the orifice, you may make the opening what size you choose, without a second attempt or any other instrument: and do not remove your first dressings until the discharge assists in throwing them off.

caustic. We should, however, be cautious in having recourse to such measures, refraining so long as there appeared any probability of the spontaneous bursting of the abscess, as the evacuation of such critical collection, before the period of complete maturity, is seldom attended with any good consequences. On examining the contents, if we find them to consist of a yellow or greenish matter, the opening should be enlarged, and to such a degree, as that when the skin shall have contracted after evacuating the matter, we shall have sufficient room for the introduction of dressings with ease. These should be nothing more than dossils of lint, of sufficient size to fill and yet lie easy in the cavity; they should not be removed until the free discharge from the inflamed lips forwarded their exit: the part should therefore be kept quite closed, until it is absolutely necessary to refresh the dressing, which is seldom the case until the third or fourth day. Afterwards, the discharge should be kept up so long as the fulness of the part, or the habit may require.

It sometimes happens that instead of matter, such as I have above described, we discover a thin, watery, or serous collection, on puncturing the tumour. Here there is occasion for further irritation, in order to excite and assist the efforts of nature, otherwise too languid, to expel a matter whose formation we cannot consider as absolutely complete.



complete. Accordingly our opening should not be enlarged, as in the former case; but, a seton\* may be introduced, which by a sufficient and safe irritation, will gradually inflame, so as to produce more maturity and a better chance of healing in future; at the same time that we ensure a regular and moderate discharge: and though the continuing a foreign body thus introduced, and to remain, is sometimes hazardous, particularly in very irritable habits; yet it is seldom so, where the contents of the swelling are aqueous, and not immediately in the neighbourhood of a joint, membrane, considerable blood-vessel, or nerve.

\* I once saw a seton introduced where the matter was yellow and ill-conditioned; the consequence was, great increase of inflammation and absorption, which produced such a fever as to terminate fatally in ten days; whereas, if the matter had a free exit, such consequences would not have followed, though the case might ultimately have ended fatally.

## CHAP. VIII.

A GLANDULAR tumor always succeeds best, when it bursts spontaneously ; and particularly if there be any portion of it indurated, which generally requires a second or third suppuration to melt it down : whereas, when opened, there frequently shoots out a fungus, which it is extremely difficult to manage. If, however, we cannot by stimulants, or other means, bring it completely forward, and there appears an absolute necessity for discharging its contents, lest we might run any risque of resorption, an opening must be made of extent sufficient to admit a full doffel of lint, which after the matter has been dislodged, is to be cautiously introduced, and so, as that the lips of the wound may not be turned inwards : this doffel is not to be removed for five or six days, though the external dressing is renewed every day. By such management a second inflammation, with its consequent suppuration, follows, which considerably assists in preventing the formation of humours in other parts, or a future fulness, so usually attendant on glandular suppurations. On every dressing, I would recommend the part to be well sponged with warm fresh water ; if salt water be used, the lips of the wound are too much hardened thereby,  
and

and the regular exit of disease \* restrained. If, however, there be great putrescence, salt, at times, or spirits may be used, though sparingly, in soft warm water; or the sea water reduced may be employed. If tumors appear without previous fever or indisposition, the same caution as to bathing, is not so necessary, yet it is prudent to wait until we ascertain the quantity and quality of the discharge: on the whole, where a disease is entirely confined to the glands externally, moderate bathing in salt or fresh water is, in general, salutary.

It must be supposed that Bark, and other tonics, would answer the strengthening ends of a cold bath; but as cold is a natural bracer and heat relaxes, and as the overdone effects of the one may be easily counteracted by the contrary operation of the other, we can thus always keep the power in our own hands; whereas, the solids being over-braced by a free use of Bark, the ferous discharge is restrained, and the disease locked

\* On this account I would particularly advise that the chilled, slow-discharging sores of young children, should be protected by plasters, during a course of bathing in the sea, or the use of any cold bath. For which purpose, a stiff adhesive plaster, composed of wax, rosin, oil, and suet, spread on strong linen or leather, is better than a soft one, as it applies closer, and may be occasionally wiped and put on again: besides, it does not encourage a fungus often troublesome in acrimonious ulcers, so much as the softer and more unctuous salves.



locked in, only to break out again with greater violence. No doubt the matter sometimes seems to thicken and meliorate, after its use; and, if the Bark be still persisted in, the wound will dry up altogether; but this is owing to the contraction of the smaller vessels, and not to any salutary change produced in the condition of the diseased part: and therefore in all morbid habits, which are discharging such noxious humours, this medicine should be only occasionally employed in order to strengthen digestion, invigorate the constitution, and correct the quality but not the quantity of the matter so discharging; for, if persisted in for any length of time, it will only restrain what, by its continuance, would have freed the blood from disease. I never knew a short step taken, either by local applications or medicine, to cause a sudden diminution of discharge from a wound\* of magnitude, or critical

\* The necessary and progressive stages of wounds, are the inflammatory, suppurative, and regenerant. In the two first, Bark would be injurious; in the latter, it might too suddenly restrain a discharge which spontaneously diminishes in due course. Very relaxed habits, however, may require temporary bracing from this remedy, and particularly where hereditary debility exists; yet should the breathing become in the slightest degree affected, or the discharge suddenly abate, it is to be withdrawn, and not resumed. I think it safer to begin with a cold infusion, though afterwards, it may become necessary to use it in decoction, or even in substance. There is a great abuse of this medicine in military practice;

cal abscess, but particularly the latter, without the worst effects; being generally followed by pulmonic affections, fatal sanguinary burstings from some part, dangerous fever, or future formation of matter in other less favourable situations.

On examining the bodies of many who had died of declines, I always found morbid obstructions or collections in some internal parts; in youth, the lungs or mesenteric glands; in more advanced life, the liver, spleen, or one of the kidneys are affected. Where, on the contrary, recovery had taken place, it has generally followed increased secretions, sanguinary burstings, critical purgings, or the formation of matter in parts whence it could be effectually discharged. I would therefore be extremely cautious in continuing a medicine, whose known quality is to brace, with-hold, and counteract natural efforts and secretions; and particularly where the recovery depends partly on the discharge of an humour, which should not be restrained, at least so long as it appears virulent, or until all obstruction and fulness were removed. The power of stopping aguish paroxysms and perspirations, are proofs of the superior astringency of

practice; no doubt, it occasions a more expeditious healing of wounds; but a cough and decline has often followed the premature restraint of even the best conditioned matter.

of this above any other tonic. This medicine is the produce of a very warm climate, where the natives eat little animal food; and when attacked by fevers, sink under profuse perspirations; consequently disorders there terminate putrid, or at best intermittent. An happy accident brought so valuable an astringent and antiseptic into use amongst them: without some such remedy, the wretched inhabitants of those regions, in many indispositions, would become unable to withstand the maladies to which they are so subject, and melt down. But how different are the constitutions of northern Europeans, who live much on animal food; who drink malt liquors, spirits, &c.; whose earlier complaints are generally inflammatory, bilious, or humoral; who, when advanced in life, become rheumatic, nephretic, or gouty; and who seldom recover from fevers without critical perspirations, eruptions, or discharges of some sort, either spontaneous or from the effects of medicine.

I would not be understood here, as objecting altogether to this valuable and efficacious medicine; I wish merely to draw the limits where it is, and where it is not admissible. I have found the greatest advantage from a moderate and well-timed use of it; that is, when employed only with a view of altering the condition of the matter, and not carried to such a degree of excess,

as



as to stop the discharge\*. I need scarcely add that we should, in those cases too, be guided by the general habit of the patient, in the administration of such a remedy; the lax, weak frame, requiring it more than one of a more robust tense fibre, especially if this be connected with plethora, or tendency to inflammatory affections of the liver or other viscera.

Again, where there are marked symptoms of putrescence, and where we have reason to fear that the constitutional powers are unequal to the conflict for recovery; our greatest reliance is to be placed on this remedy†. It should, however, even here be used only occasionally, in such degree, and at such intervals, as shall not obstruct or retard any natural secretion or crisis, which is going on, or may be expected to offer.

All

\* I recollect having visited two boys, whose parents insisted on their taking Bark to assist in healing glandular tumors discharging thin matter, which, from the effects of this medicine, became thick, and the sores dried up; they soon grew hectic, and died; on opening their bodies, the lungs were found totally obstructed and full of matter. Similar appearances presented in a third son, who, by pursuing a regular course of diet, without much medicine, gradually recovered.

† The laxity and sponginess of the part affected, a good deal authorises the use of this medicine; diseases falling on the Fauces Scrotum, or Labia Pudenda, require both the employment of internal as well as external astringents and antiseptics, amongst which Bark deserves a preference.

All these cautions are more necessary in young subjects, than among those advanced in life ; at all times concluding that the too long persisting in the use of this medicine, may be of worse consequence than the entire omission of it.

## CHAP. IX.

THERE is one variety of abscess or tumor, which deserves particular notice; I mean that which is observed to take place sometimes in the vicinity of a great joint, without any external obvious cause. In such we should be cautious how preparations of lead, acids, or any cold applications are used; as the circulation, naturally in those parts flow, would thereby be rendered still more languid, so as to reduce, or even to destroy altogether, that degree of vital energy necessary to expel morbid matter.

The part should be kept warm, which is best done by the application of oil-cloth, silk, or double paper, over flannel. Thus, by the exclusion of external air, we induce perspiration: and in this way I have seen the most considerable fulness gradually diminish. And, though cold-bathing may ultimately be judged useful, yet I would recommend that, in such cases, it should always be preceded by the warm salt-water bath; which, by degrees, may be reduced in temperature, until we at last come to the proper standard for a cold bath.

For



For want of such caution, I have known a joint become so completely obstructed, as to require amputation of the limb; where, in all probability, had matters been conducted as I mention, the fulness might have gradually wasted away, or kindly suppurated. The cases I allude to, were chiefly of the knee and elbow.

Where objections or doubts have arisen as to the propriety of using the cold bath, considerable benefit has been obtained from a residence as near to the sea as possible, until the diseased parts became in a safer state to bear bathing. This observation is particularly necessary where children have large heads, contracted chests, or any appearance or symptom of visceral disproportion and debility.

## CHAP. X.

I NOW come to take notice of appearances, which though in themselves but slight, yet, if counteracted, repelled, or suddenly checked, may occasion the worst consequences; I mean, what are usually called chilblains; which, though they shew a languid circulation, requiring local stimulus, yet if repelled by bracing applications, are often succeeded by fever, abscess, or glandular obstruction of some part.

Our object should therefore be, to alter by gradual means, the atony and debility which commenced the disease: at the same time to procure local warmth, encouraging that natural circulation and perspiration, which were regular in the extremities during the summer months, and in the increase of cold, thus became impeded.

Accordingly, we should begin with bathing the parts in horse-radish, mustard, or potatoe-water, morning and night; taking care to keep them covered with flannel. It may be sometimes necessary to enclose all in a bag of oiled-silk or paper, so as to exclude external air: and if they break out into ulcerations, warmth and  
digestion

digestion should be the principal points attended to \*. The practice of applying spirits is found objectionable: they act too much as repellents; yet combined with soap and camphire, are sometimes safe, previous to ulceration; and then only occasionally: and where appearances were so livid as to threaten mortification, a julep of camphire may be taken, as a warm diaphoretic; or a pill of two grains of this medicine, every night, and washed down with weak wine whey.

How cruel and erroneous is the custom of excluding children from the fire!† All plants thrive best in a nursery, until they acquire sufficient vigour to bear transplanting. Observe how the young of pea-fowl and turkeys require the greatest warmth and care to bring them on to a certain growth; yet they afterwards become the most hardy of all tame fowl. But though I should recommend warmth for the child when in the house, this should be practised only whilst the season continues rigorous; for, nothing can be more conducive to health, nor in children  
more

\* I find wax and oil melted, with the addition of a small quantity of turpentine, to be the best ointment in such cases: sometimes a little camphire is useful.

† I have seen ulcers succeed to chilblains, which continued for a length of time, and were ultimately cured by very increased warmth on the parts, and digestive ointments applied, without the use of internal remedies.



more requisite to obtain and preserve it, than moderate exercise in pure air; which should, therefore, always be attended to, when the weather permits.

## CHAP. XI.

IN almost every stage of this constitutional imperfection, whose different morbid appearances we have already been attempting to describe, the practice of cold-bathing has been much recommended; having, I presume, been often found to agree with persons suspected of having an acrimonious taint. But, though this measure has been very justly recommended, yet the want of proper distinction being made between the kind of constitution requiring it, and that wherein it is inadmissible, has led to the indiscriminate use of this remedy.

The mode of its operation also, should be investigated, before we determine on any method of employing it: which again is to be regulated by the particular habit of the person on whom we wish to make the trial. For, though a number of children shall be produced from the same parents, yet they may differ in constitutions as much as in their persons; consequently bathing in, and drinking salt-water, may be salutary for some and pernicious to others.

The pale, languid child, whose complexion shews a crudity of juices, and perhaps a tendency

deucy to worms, will require a different treatment, even in this respect, from one whose countenance and person indicate vigor and freedom of circulation, without any predisposition to the formation of disease. In the former case, the internal use of sea-water is found more advantageous than bathing ; at least it should be taken as a preparation : both, however, may be used in moderation ; that is, merely as alteratives ; without being pushed to that extent usually practised, and whose general consequence in such habits, is only an increase of that debility which they were designed to counteract.

I would therefore, in such circumstances, advise the drinking of sea-water, so far as a cupfull, three times a week ; to be varied at discretion, according to its effects: that is to say, the dose and interval to be increased or lessened as it may be found to agree with the stomach and bowels of the patient.

As to the bathing it should be practised only in the summer months, and then too with caution, and not every day : taking care to discontinue it, if any symptom of torpor, such as languor, lassitude, chilled fingers, or sense of oppression in either head or chest, should occur. Frequent walking near the sea-shore, is found to afford great benefit sometimes, when we are apprehensive of too violent effects from sudden



immersion ; when, on the contrary, children are florid and full in flesh, though hereditary acrimony should be known to exist, yet bathing for such a state of body is not so proper, nor is drinking the water so necessary : the latter, however, in moderation, is less exceptionable.

In all cases where the breathing becomes affected, we should remove the child immediately from the sharp saline air, to an inland and warmer situation.

Whoever breathes against a glass, shortly discovers what humid vapour is discharged from the lungs ; this explains the reason why those who have confined weak chests, are not able to bear the astringency of salt air, which contracts the delicate mouths of those tubes, by which such vapour is exuded. It is often observed that a sea residence is too sharp for some constitutions ; and for such, the salt bath, in addition, is hazardous. Therefore, whilst some children may bathe, who are not able to reside near the sea ; others may not bear the salt bath, yet can breathe well in sea air.

For all children of this latter description, thin flannel next to the skin, is most necessary ; but in particular, to wear woollen stockings : and in proportion to the coldness of the season to which bathing is extended, the entire dress should be increased

increased in warmth; thereby to restore that heat to the surface, which is dispelled in proportion to the chill brought on by increasing cold.

So far I have considered bathing in cold salt-water salutary for weakly or acrimonious habits; particularly at an early age, both from the bracing effects of cold, as well as by the astringency and antiseptic power of salt; particularly on glandular parts near the surface; but where the lungs, or any principal bowel \*, is likely to become obstructed, or was only recently affected, in such cases we can more safely and effectually employ the tepid salt bath; but not so frequently. It also may be increased in heat and saltness, in proportion as we wish it to act as an absolute repellant; we may then vary and continue this course during the entire winter and spring; going in twice or thrice in the week, and by gradually diminishing the heat, as we approach the summer, render the bath entirely cool in the month of June; when we can commence cold bathing.

By such process I have seen tumors of the large joints†, where suppuration would have been

\* Where the lungs are delicate, and the state of body requires a cold bath, I prefer the fresh water, as continuing its astringency for a shorter time than the salt water, consequently insensible perspiration sooner returns.

† In particular parts where a mark would be disagreeable, and among small bones where it is unsafe for matter to collect,

been hazardous, happily dispersed: when, had a cold bath been first entered on, the obstruction would have been more confirmed. I have also observed obstinate inflammations of the eyes, which were founded on relaxation and acrimony, done away; chilblains prevented; juvenile female weakness corrected, and the habit prepared for further astringents if necessary.

Fulness after strains or fractures, and indolent swellings of any part which it was safe to disperse, have yielded safer to this than to any other external means.

Rock-salt dissolved in water, shall answer equally well as sea-water, which can only be procured in few situations: the strength may be increased if required, by the addition of more salt; and the hotter and saltier we prepare the bath, the more shall it extinguish humour\* about to form; and prevent obstruction founded on hereditary taint, from becoming confirmed.

Let

collect, I have by very warm stuping with salt-water, dispersed such collecting humour; at the same time I had reason to suppose that much of the constitutional acrimony was thereby extinguished; consequently less danger of its falling fatally on any other part, than when repelled by the cold bath.

\* When we wish to repel a forming whitloe, the practice is to steep the finger in water beyond blood-heat; whereas if the bath were only of a moderate warmth, the part would probably go on to suppurate.



Let it be observed, that, though such are the safest means to repel humor about to form, yet proper regard should be had to the state of the lungs, size of the head, or any other appearance which should lead us to suspect future formation of disease in less favourable situations.

## CHAP. XII.

WHEN the head of an infant becomes uncommonly large, the countenance pale, the pulse quick and irregular, the eyes projecting, and the sutures of the skull remarkably open, with other signs\* of morbid relaxation, we have reason to suspect that water is collecting within the cranium. This diseased action, as it may be varied according to the nature of that particular part of the brain in which it takes place, as well as by the age, habit, or constitutional predisposition of the patient labouring under it; so does it discover itself by signs or symptoms, whose forms and appearances are as variously modified. When it happens within the substance or in the ventricles of the brain†, all those symptoms which we have now enumerated, do not regularly present; and even though the superficial parts of the brain be so engaged, to which

\* In some instances, this complaint comes on by an unconquerable drowsiness and inability to keep the eyes open.

† I have seen cases where the bones of the head have been distended to a most astonishing size, without such impairment of the senses as might be expected; on examination after death, the brain was found almost entirely dissolved; from which I conclude, that both solids and fluids must be morbidly affected to produce this disease.

which case such appearances more properly belong, they are not so marked, provided the disease occur at a more advanced period. Hence it becomes necessary that we pay a most particular attention to those symptoms, by which we may be enabled to distinguish the first attempts at the formation of a disease, which, if once completely established, becomes a more hopeless case than any of those usually presenting at so early an age. We shall therefore consider it according to the distinctions already pointed out, namely, as it may arise from a morbid action taking place on the surface\* of the brain, in which case the disorder is termed Chronic, or within its cavities, when it is known by the name of the Acute kind; in both of which forms the usual termination is by an effusion of a thin watery† lymph. The appearances above enumerated indicate, as I have before observed, that particular variety of the disease termed Chronic, where the water is collecting on the surface of the brain, or between it and the membranes in which it is enveloped.

Now,

\* When water collects only on the surface, the scull is not so much distended as when it takes place within the ventricles: I should call one the Anasarca; the other, the Ascites of the Brain.

† The nature of this fluid has been much disputed. It is said by some to be coagulable by mere heat; by others to be readily volatilized: Dr. Baillie asserts, that it is of the same nature with the fluids effused in other dropical affections: it certainly, however, contains a proportion of the muriatic as well as of the phosphoric acid.



Now, were we here disposed to discharge whatsoever quantity of water there might be contained under the cranium, by the mildest methods practised in the palliative or radical cure of an hydrocele, which partial dropsy is most within our reach, and least dangerous, the very attempt, by any operation, would prove fatal \*. If, therefore, assistance can be given, it must arise from such medicines and other measures, as may produce effects or constitutional efforts similar to those, which, when they have offered spontaneously, have been known sometimes to have removed the disease.

The only instance I ever remember to have seen of water absolutely collected, being resorbed, or removed from those parts, was in a case where a natural and spontaneous salivation supervened, which continued for the space of twelve months; the sutures closed, and the head returned to its natural size†. I suppose that instances of this  
and

\* In those cases the Water is generally contained in separate vesicles, therefore would not follow the puncture of one of them alone; and were we to hope for a radical cure, it could only be effected by subsequent inflammation, as in the Hydrocele, which effect in the brain would terminate fatally.

† There have been cases, as I understand from good authority, and have seen in this country, where there was every symptom of brain disease, which have gone off after a sudden and violent watery discharge from the nose: but here the fluid was only collected in the Frontal Sinus, therefore the complaint was not water in the brain.

and fimilar kinds firft induced practitioners in phyfic to ufe mercury by friction, which I have feen repeatedly tried, without the flighteft benefit : on the contrary, it was, I fear, injurious; it being a well-known effect of crude mercury, when employed in any confiderable quantity, to load the head, previous to its forcing any fecretion. In confequence of this effect of mercury, the effufion has often been much encreafed, and the difeafe thus only confirmed. Befides, there is a great uncertainty of our being able to produce falivation at an early age, and even though we did fucceed in doing fo, of the fputting continuing fo long as to remove the complaint \*. The experiment is therefore both ineffectual and dangerous. I fhould rather proceed, at firft by diaphoretics†, fuch as James's Powders, after the bowels had been cleared by calomel, combined with

\* Dr. Leib, of Philadelphia, had a boy of three years of age under his care, labouring under this complaint, to whom he gave from fixteen to twenty grains of calomel every day, with fcarce any fenfible effect on the mouth. In the Medical Facts, and the Mem. of the London Society, there are cafes where the patient has had feveral ounces of the mercurial ointment rubbed in without any fign of falivation produced.

† Doctor Temple mentions fome instances of this difeafe, which he cured by diaphoretics; the one he chiefly ufed was the Doronicum, which he was led to employ, from having obferved its effects when given in paralytic affections, where it always produced violent fweating about the head. There is a cafe alfo in the Med. Commentaries, Vol. VIII. cured by the vapour bath.

with aloes, as worms are very often known to accompany this disease, the distress of whose symptoms is thereby much increased. I would likewise use such diuretics as squill combined with calomel, also nitrous spirit in whey, and such medicines as would cause a general and safe determination to the surface. The entire body should be covered with flannel, and oiled-silk bootkins may be worn over woollen stockings, which will greatly assist the operation of those internal remedies that I have now described. Blistering the scalp has been advised; but, in my experience, has not answered any good end: it affords little discharge, for which you give up the chance of local perspiration, or of the benefit likely to arise from the topical cold bath; and, considering the improbability there is of extracting any fluid through the skull and its membranes. I should rather rely on the power of medicines and applications, such as would produce other more copious and more effectual evacuations, or the increase of natural secretions, wherever there appeared the greatest tendency in nature to exhaust the complaint. If, therefore, blisters were to be employed, they should be applied where most discharge could be procured. And, as to the topical cold bath, it should be used at least three times a day, taking care to avoid the risque of catching cold, by having the head immediately covered with a woollen cap, which should be worn constantly; this caution will



will be particularly necessary after, or during the use of calomel. In cases where mercury is employed to any extent, the cold bathing of the head is altogether inadmissible, as is also the use of the clay cap so highly spoken of by some modern practitioners\*. Errhines, or those medicines which produce a gradual, free, easy, and copious discharge from the nose†, are reckoned amongst the remedies which have been found useful in this complaint: bleeding has also been highly recommended: the former, however, have seldom, I believe, if ever, afforded any material benefit; the latter is more properly ranked among the remedies to be used in that other variety of the disease, termed acute, and of which we are in the next place to take notice.

The symptoms, by which we usually ascertain the presence of this complaint, where the water is about to form in the cavities of the brain‡, are the following: The child is seized with feverish lassitude, shewing an averseness to motion, and even to food. The pulse soon becomes

\* Dr. Rush, of Philadelphia.

† These properties distinguish that class from substances which, though they promote a discharge from the nose, yet cause a sneezing; so giving a temporary kind of shock or concussion, and which on that account are attended with danger.

‡ Both sexes are equally subject to this disease in infancy; but the male scarcely after twelve, the female after eighteen, provided her menstruation is regular.

comes extremely quick, and at this time, the appearance not only of the face, but of the entire body changes very much, a paleness and general emaciation coming on. The head next becomes affected\*, as also the stomach, both alternating in distress with each other, the head-ach being generally observed to be relieved at the coming on of the vomiting, which ceasing, the pain of the head again returns with the usual violence. The fever now encreases, the pulse quickens, the heat of the body becomes intense, and the eyes, in particular, evince the most extreme irritability, so that the light of a candle cannot be borne. The patient shews frequent inclination to rest, which, however, he cannot enjoy; but, during this contest with nature, being seen to grind his teeth together in a most horrible manner, he at length starts with a scream, from this state of half sleep, in all appearance more fatigued than refreshed. Here again the face changes its colour†, a remarkable  
 brightness

\* The affection of the head is seldom general in this disease; the fore-part alone, or one side of it, is usually attacked, in the latter case the head is observed to incline to that side.

† The picking at the nose at this period, has, in many instances, induced practitioners to consider the symptoms as proceeding from worms. But, though the nostrils here are dry, as in worm complaints is the case, yet they are free from swelling, as is also the upper lip; both of which circumstances may assist us in distinguishing this complaint from worm fever.

brightness of complexion comes on, which sometimes occupies but one of the cheeks, the other remaining in that state of ghastly paleness which we have already described. The bowels are usually constipated, and that to such a degree, that it becomes almost impossible, even with the strongest purgatives, to excite them to yield any discharge, which, when it is obtained, is mostly of a green colour, and accompanied by a remarkable fautor\*. As to the urine, we cannot observe any regular deviation in it, during this disease, from its natural standard, except in quantity, which diminishes as the water collects, and power of the nervous system fails.

Those symptoms which we have related, and which evince a morbid determination, with its usual inflammatory consequences, to have taken place towards the brain, are succeeded by others no less clearly indicating a torpor of that organ, in consequence of the effusion, in which the disease more properly consists†, having already  
taken

\* It sometimes, though indeed very seldom, happens that the bowels are in a relaxed state, when it is extremely difficult to distinguish this complaint from worm fever; all doubts, however, vanish, on the coming on of the soporose affections.

† Indeed the symptoms shewing this to have taken place, are, strictly speaking, the only true and indisputable characteristics of the complaint, which is very apt to be confounded with fevers from worms, difficult dentition,

or



taken place. Instead of the quick pulse, we have it reduced to less than one-half of its former frequency, and its beats become irregular both in strength and interval. What is very remarkable here, is, that though the fever may be judged to have lessened by this lowering of the pulse, yet the heat of the body, so far from being diminished, is actually increased to a most alarming degree. The head-ache now abates, the vomiting no longer continues, nay, so altered seems to be the condition of the stomach, that the child appears to suffer no other kind of inconvenience than that of mere fulness and consequent oppression, in yielding to the impulse of that voracious appetite by which he is usually urged at this period.

Nor is the indication of the general change thus effected in the diseased habit, limited merely to those varieties. Another, and a no less remarkable one is observed in the condition of the eye, where that organ, lately evincing such morbid irritability, is now so far bereft of its powers of sensation as to appear reduced down to the lowest state of torpor. We behold accordingly, its pupil to dilate, seeming scarcely sensible

or from morbid affection of the mesenteric glands, to which last mistake I am inclined to impute the boasted success of mercury in many supposed cases of Hydrocephalus, that remedy being one of the most efficacious in obstructions of whatever organ.

sible to the operation of light, a palsy\* of the retina itself having now supervened. That this paralytic affection extends to other parts immediately connected with the eye, is evinced by the strabismus squinting or various distortion of the eyes; as also in the great relaxation of their lids generally observable at this period or stage of the disorder. These, as well as other paralytic affections of different parts, sometimes alternate with slight spasms or convulsive attacks in those respective situations. The breath is remarkably offensive, and worms† are not unfrequently voided either by the mouth, or at stool. There is yet another symptom belonging to this stage of the disease, which characterizes the complaint, and which is, as far as I know, peculiar to it alone; the patient, on suddenly awakening, strikes his hands against each other with violence over the crown of the head, at the same time uttering

\* This term, though usually applied to mere muscular parts, is by no means objectionable here, particularly when we consider the strong analogy there exists between sensibility and irritability; besides, the opinion of the muscularity of the retina itself is supported by a great variety of analogical reasoning, that of the Iris is completely established.

† This is to be considered as merely an effect of the disease, which is often the case in long protracted complaints, and it becomes necessary to make this distinction here particularly, as this circumstance very often is the ground of the grossest mistake in distinguishing the disorder.

tering a scream, after which he sinks again into his wonted state of torpor.

We now come to notice the last and generally fatal signs of this dangerous malady, which seldom supervene on those we have been just describing, sooner than after a space of ten or twelve days. This stage of the disorder is ushered in by an aggravation, sometimes of the paralytic, sometimes of the convulsive attacks, the latter more especially: and, strange as it may appear, it yet happens that whilst one part shall evince the most extreme torpor, another shall exhibit an irritability no less exquisite. The parts usually thus distinguished are the nervous and the vascular; for, though the energy of the brain and nerves be almost totally exhausted, as is manifested in the deep coma, the involuntary discharges of urine and fæces, the universal languor, and above all, in the absolute blindness, which at this period come on; yet, so great is the irritability of some muscular parts at the same time, and particularly of those expended on the vascular system, that the celerity of the pulse becomes almost inscertainable\*. The eyes now put on the appearance of external inflammation, which, however, seems to be confined to the vascular parts of its coats, as the dilatation of the pupil, and the total insensibility to light yet continue. The body

\* It has been counted to two hundred and ten beats in a minute, but sometimes goes beyond all calculation.



body is covered, now with scarlet, now with livid blotches, its temperature varies from the most parching heat, to a benumbing cold, which alterations are no less frequent than sudden : the convulsions here grow more and more frequent, in some cases blood flows from the nose, the powers of deglutition cease, the respiration becomes laborious, and at protracted intervals is performed with a snorting kind of noise, subfultus of the tendons, and short and frequent fits of spasms, which close the melancholy scene.

I have been thus particular in describing this complaint, as well because it is supposed to be more frequent\* of later years than formerly, most probably from its being so little understood, as that I am persuaded if assistance be not timely given, which must, of course, imply an early knowledge

\* This is the strongest instance of the existence of hereditary acrimony and debility ; for, where such humour prevails, and does not throw itself off by some external form, it generally rests in the brain or lungs, and obstruction mostly produces effusions of water in contiguous parts ready to receive them, such as the chest, abdomen, tunica, vaginalis, and ventricles of the brain.—I have observed the children of old studious sedentary men, who did not marry till far advanced in life, produce this disease when approaching to puberty, particularly females : such youth of both sexes shewed uncommon talents, particularly for music. Wherever the mental powers are more than in proportion to the health or strength, children should be forced to exercise, and not indulge too far even in what the genius was most inclined to.

knowledge of the disease when about to form, we shall only do much mischief, without being able to afford relief. I wished likewise to have had an opportunity of pointing out in the strongest manner, a variety of objections which my own experience had led me to entertain against some particular points of practice highly recommended in the treatment of this complaint, the futility of which could in this way be more clearly demonstrated.

The general treatment in this variety of the disease, much resembles that which we have already pointed out as least objectionable in the cure of its chronic form, with this exception, that bleeding, as I have before hinted, is more admissible in this than in the other species. The bleeding, however, should only be performed in the earliest stage of it, and while the symptoms indicating the inflammatory attack, are yet present; for, if delayed until the approach of those signs, which we have shewn to mark the coming on of effusion, it will only favour that particular termination of the disease, which we should be anxious to avoid. Generally speaking, our measures should be well timed, and regularly employed; I mean, so as that their effects shall be gradual, not sudden; for, granting that the grand object, if our attempts to cut short, or to check the progress of the inflammatory stage have been ineffectual, and the effusion have already commenced,

menced, I say, granting our principal design to be the removal of the collecting fluid, yet, were we to effect that suddenly, or by any very active measures, we should do much mischief, in as much as, it being impossible that the contents of the cranium could, at different times, vary in quantity, there should be either a sudden growth of the substance of the brain itself, or else, as sudden and preternatural a distention of some of its vessels, in order to fill up the waste thus occasioned; either of which operations, implying a very violent action in an extremely delicate organ, must be attended with consequences injurious, if not fatal, to the constitution. These cautions are much more necessary in cases where the disease has occurred in a child rather advanced; as, in absolute infancy, the bones of the head will yield or close, so as to admit of a greater variation in its solid capacity.

As to the causes of this complaint, they are many. Accidents or injuries by blows or otherwise on the head, repelling of eruptions\*, secretions,

\* I lately attended a child of two years old, who threw out an eruption over the entire surface, which discharged copiously; his parents conceiving it to be an itch, insisted on his being rubbed, which suppressed the humor; but in proportion as it abated, his head enlarged, and the sutures became more open; it therefore was thought proper to use a warm bath, which renewed the discharge on the surface.

The



tions, or of forming humours, insolation, nay extreme cold, all have been observed to have brought on this disease. It is said also, to have followed different fevers, whether intermittent, rheumatic, or dysenteric; the scarlet fever, too, has been succeeded by this malady; as have also Measles, Small-pox, and the Tinea Capitis: these however, have, I presume, given rise to the complaint in question, so far only as they have been arrested in their own regular course, by means calculated merely to weaken or restrain nature's indispensable and salutary exertions. The most common and general cause, however, of this disease, is to be derived from hereditary taint\* or acrimony, to which we may add that acquired by bad suck, or various mismanagement, such as we have elsewhere pointed out. On this account, then, we should be extremely cautious how we employ remedies, which reduce and impoverish the blood to such a degree as mercury, if used in so considerable a quantity as might be supposed necessary, would certainly effect.

The head then diminished, and he is now free from every complaint except some remains of the humour on different parts.

\* Where constitutional acrimony exists in the habit, glandular suppurations and abscesses generally present; but where such contamination happens to form in any part of the brain, it is followed by a ferous collection, as absolute matter or suppuration does not take place within the cranium, except from some external injury.

effect. We should, where, in such constitutions, appearances give reason to suppose that this disorder may be about to take place, administer wine in a certain degree in order to give chance of eruptions\* being thrown out, or of collections coming forward, which often prevent the internal formation of disease. I should at the same time expect some advantage from an issue made in the neck, provided the child be not very much reduced in flesh.

I have said that this complaint has often arisen either from repelling a collecting humour, or by suddenly counteracting critical efforts of a relaxed diseased habit, in suppressing perspirations †, or checking eruptions, which may be occasioned either by the continued exhibition of Bark, or an ill-timed and too frequent use of the cold bath. I recollect having visited a child of three years old, who had a considerable swelling on the knee, threatening an evident collection of some kind, which by cold bathing had been suddenly repelled; he soon after became feverish, then

\* The warm salt bath, seldom fails to bring out an eruption, which, if copious, might give a favourable turn to the disease.

† Doctor Percival of Manchester, relates a case of a young lady, who, whilst in a profuse perspiration, took a draught of cold water, by which the perspiration was instantly stopped; she was soon seized with the usual symptoms of water on the brain, of which she died.

then comatose, and died in three weeks. On opening the brain, the ventricles were found quite distended with water. I was called to see another of nearly the same age, who had a large tumor on the elbow, which from repeated application of leeches, and blistering on the part, previous to my attendance, had suddenly disappeared; vomiting soon succeeded, with most excruciating pain in the head, which shortly terminated life. The brain being examined, I found an aqueous collection in both ventricles sufficient in quantity to account for the fatal termination. In the first case, had bathing been postponed until suppuration had come regularly on, and the part being properly deterged, so as gradually to diminish the discharge, before a cold bath was ventured on, such fatal consequences would not, in all probability, have ensued. In the second instance, the active dispersing measures counteracting natural efforts to expel disease, equally accounts for such mortal effect. Therefore in all weakly acrimonious habits, indulge the first critical exertions of nature to expel disease, which, if suddenly and forcibly opposed\*, may change to situations, and

\* Early in my practice, I was forced to apply a caustic on an unmatured acrimonious tumor, with expectation of creating earlier suppuration than what nature seemed likely to produce; but no discharge coming on, the child became feverish, attended with a pain in the head, and died in a few



and appear in forms much less favourable, and perhaps altogether out of the reach of art to counteract.

I lately attended a remarkably fine boy of seven years of age, who had every symptom of water collecting on the brain; all probable means for recovery were employed without effect. On opening the head, we did not find any fluid in the ventricles; but there was a general venous plethora, and absolute sanguinary stagnation in the sinuses, which, I presume, arose from debility and atony; and which I suppose to be frequently the case in young languid females, who sink under brain complaints, preceded by obstructions, or a profuse and too frequent redundance, equally evincing debility, and threatening future disease,

Some observers have considered this complaint as inflammatory, acute, and among the apoplectic disorders; but it is more frequently the effect of a chronic and constitutional cause: therefore, profuse and repeated bleedings, as might be proper in a recent inflammation and full subject, would, in the end, only enfeeble  
and

few days; the ventricles were found filled with water. I suppose, had the tumor been suffered to continue stationary or brought regularly to suppurate, no such consequence would have ensued. Repelled, suppressed, or counteracted humour generally falls on either the head or chest.

and further dispose to confirm the disease. However, as I have before observed, while the symptoms of actual inflammation are present, then and then only, we may have recourse to such a measure: that is, at the very commencement of the disease.

## CHAP. XIII.

IN the preceding chapter, I have considered this disorder as partly constitutional and incidental to children of both sexes, where hereditary acrimony in some degree existed. But, when females (who never have menstruated, though past the usual period of life for such event, or in whom, if any changes have come on, they have been such as were not sufficient to answer nature's purpose, or others who are too profuse and frequent in menstruation) become suddenly attacked with evident symptoms of brain affection; we, in the first stage may suppose the complaint to be in some degree apoplectic; accordingly, if the patient be not too much reduced in flesh, I recommend one plentiful bleeding in the foot, previous to which, the limb should be kept for some time in very warm water: this mode of removing vascular plenitude from any superior part, particularly if the head were affected, was much practised by the ancients; yet, though in most instances it is preferable to topical taking away of blood; there are some exceptions. In all circumscribed sanguinary obstructions, or local stagnation in circulation, where capillary vessels only are overcharged, as in inflammations of the eyes, there contiguous  
bleeding



bleeding by cupping, scarification, or leeches, answers an immediate good end. But, in cases of plenitude in large vessels deep-seated, or where the sinuses of the brain become loaded, such partial evacuating of blood so sparingly, though repeatedly, would, I fear, only create irritation, and promote further flow of blood to the parts so acted on. How this may affect the interior parts, can readily be conceived, when we reflect that the superficial and internal blood-vessels of the head, have so direct a communication with each other. Thus, then, we may account for instant ease produced, but a return of more acute sensation. One copious bleeding answers to remove a complaint more effectually, than the same quantity of blood made out by different operations.

We observe that after a sudden great loss of blood from a wound, fever \* arises; should such effect follow, the increased momentum here might afford some chance of diverting the continuance of a disease, arising from lentor in circulation; but further taking away of blood in any manner would be improper. Wine diluted, is necessary, and indeed is generally medicinal to females, who, from their temperance when in health,

\* This happens in consequence of the sudden taking in of chyle to assimilate with the blood, and the fever is always in proportion to the quantity of blood lost; consequently more fresh chyle entering the circulation.

health, feel the good effects of it when indisposed. The feet should also be bathed frequently, and the head sponged with cold water, after the removal of the hair at least from the crown. Calomel, combined with squill, and a small quantity of aloe, so as to keep the body open, should not be omitted. Blistering, particularly when employed late, is rather injurious; and, as I before observed, should not be applied on the head. If some critical eruption, piles, bleeding from the nose, or other salutary change does not present, any of which further reduction might counteract, I fear such cases must ultimately terminate fatally.

Another degree of affection in the head, to which I give the name of Brain Fever\*, is where menstruation has commenced early and copiously, continuing for more than the usual time, and returning at shorter intervals, which shews both a weak state of solids, and acrid attenuated fluids. In such cases, though the late changes might have been considered as sufficient, yet if weight in the head is complained of, I should recommend once bleeding in the foot, as in the former case; the feet, however, should not be continued long in the water, as here the  
blood

\* In this complaint particularly, mercury should never be used but with intention to open the body; for which purpose it answers better than any other medicine, as the bowels are in too torpid a state to be acted on by common purgatives.

blood is already too thin and impoverished. I advise all drinks to be taken cold; among which I prefer wine and water occasionally, and such general invigorating treatment as is indicated in female habits, when attacked by fevers likely to turn out putrid. Sponging of the head, too, should not be omitted; and, when used within certain limitations, so as not to prevent reaction, is found to be very serviceable. Blistering, or any active means which accelerate the circulation, and further attenuate the blood, do mischief; and all painful experiments\* only serve to scatter thorns on the death-bed pillow; and are derogatory to the character of an experienced, judicious, humane practitioner.

\* On opening the heads of females who died of fevers arising from brain affections, I found some serous effusion in one or both ventricles; in consequence, I suppose, of an overcharge of the blood-vessels and sinus's; and in similar cases where recovery took place, it arose from copious bleedings at the nose. However, such efforts of nature should not encourage us to take away blood in the latter stage of any fevers, except in cases where respiration continued to be oppressed, or fixed inflammation of some bowel were such, that the overcharge or suppuration might terminate fatally.



## CHAP. XIV.

BLOOD issuing spontaneously from any part, particularly in a young male, is more the effect of acrimony than simple plenitude, except in some particular instances where partial and temporary obstructions may exist, which shall oblige vessels to give way. And, though where this appearance is sometimes produced by over exertion, intemperance, or cold attended with fever, we then find it necessary to let blood, and reduce the habit; yet, where we have reason to suppose, from countenance and symptoms, that the juices are in a morbid state, and solids much relaxed. We should after the first bleeding has ceased or remitted, continue nearly the same regimen that would have been judged proper for such constitutions, had it not commenced; except as to wine and flesh meat, both which should be diminished for a certain time, particularly the latter; the wine should be diluted with water, especially if the person so affected was not in the habit of wine drinking; when I would not suddenly commence it, at least in such a quantity as hereafter might be necessary.

We are to suppose that according to the copiousness of any spontaneous discharge, particularly

particularly sanguinary, there previously existed a necessity in some part, or the circulation at large, for such unloading or liberating the habit from disease. I have often observed the constitution so much benefited, by what seemed a most alarming sudden loss of blood, that to such, though not supported by written authority, I give the name of sanguinary crisis; which is, however, differently relevant or dangerous, according to its quantity \*, morbid cause, strength of the patient, or the part from whence the blood actually flows.

\* The more copious natural discharges of blood are from particular parts, frequently more critically favourable at least for temporary relief; and where they terminate either immediately fatally, or recently afterwards, we may suppose them out of the power of art to remedy; yet such complaints may be considered as necessitous efforts of diseased habits, though fruitless. I have known one of a family to die of a putrid fever; another early afflicted with gout; and a third, seized with a bursting of blood from the lungs, and instantly expire. I might have considered such sudden death rather to arise from suffocation than from the quantity of blood lost, had I not known a near relative to that family, expire after an incredible quantity of blood voided by the anus.

## CHAP. XV.

IN youth, bleeding from the nose is rather salutary, and sometimes necessary, when there had existed a previous plenitude of the vessels of the brain, or a fulness of the liver. In such cases, we should not attempt to restrain so critical an evacuation: however, where it becomes profuse and unremitting, or that it appears a sufficient quantity has been discharged to answer the purpose of nature; especially as we sometimes see blood from small vessels, which thus soon lose their contracting power, shall continue to flow until restrained by art. In such cases we must check a discharge which, by its continuance, might so enfeeble as to endanger the future health, if not the life of the patient. The most simple and most effectual mode of stopping an hæmorrhage from this part, is by pressure, and the manner of applying it is as follows:

Examine whether the blood comes from the right or left nostril, or both; if from the right, press with your right thumb, as high as you can, from without to the vomer or middle bone of the nose, taking care that the mouth of the nostril shall remain open; this pressure, if con-

G

tinued



tinued long and strong enough, seldom fails, except the blood comes from such a distance as that the bones shall prevent the pressure having effect; which is, however, very seldom the case, unless the bleeding was occasioned by external injury. If from the left nostril, use the left thumb; if from both, the two thumbs; still observing the necessity of perseverance. I have so frequently succeeded by such simple means, that I prefer this step to the use of any styptic\*; at least first give it a fair trial; but should the bleeding still continue, examine whether the hands or feet are cold; if either, let them be immersed in warm water. Also, take care to empty the rectum by a clyster; for, if hardened excrements should be lodged in that part, the blood being thereby impeded from descending freely into the lower extremities, the head and superior parts feel the overcharge.

Should the bleeding not seem to abate, I would not have any doubt about the safety and efficacy of a vomit; the action of which, by exerting a general, free circulation, diverts the flow flowing to and from a part where no principal vessel existed, to hazard any further dangerous

\* In all cases of bleeding from external parts, or which can be reached, pressure is what we chiefly rely on; particularly after the extraction of a tooth, this more effectually stops the blood, than a styptic; to apply which, we must open the gum, and by pressure we close it.

gerous loss of blood: no doubt but, for the instant, more blood issues; it soon, however, ceases. There are so few who sink under an hæmorrhage from this part, except in the most reduced and latest stage of mortal diseases. And having often found the constitution so much benefited by a most incredible quantity of blood \* suddenly bursting from the nose, that I should be cautious in advising blood-letting, which would only reduce and counteract what might be dangerous to restrain. Accordingly, from such practice, or the employment of too powerful astringents, I have seen bloody collections take place in the Tunica Vaginalis, or the chest; for, when the constitution is so far restrained by coercive measures, or debilitated by evacuations and other modes of reduction, as to be prevented from completely finishing what nature critically

\* Some years back I attended a young nobleman, who, when seven years old, lost such a quantity of blood from the nose, as threatened a period to his existence. But, in a few days he began to regain strength; and is now a healthy young man. His father was not so much alarmed as might be expected, having experienced a similar complaint at the like age. This youth, when recovering, for many months lived mostly on bread, and could not bear animal food: which circumstance I have ever found to be a better symptom of complete convalescence at an early age, than where the instinctive appetite called principally for flesh meat. Blood made from good vegetable nutriment, is less likely to become diseased, than when produced entirely from animal food.

critically and necessitously commenced. It is mere chance where the overflow of disease may fix its future abode. The same reasoning will guide us in our choice of regimen, as we have pointed out against the indiscriminate practice of blood-letting, we may reduce as much by the one as the other, and with equal detriment to the constitution. When, therefore, the disease cannot be traced to any external or accidental existing cause, such as cold, violent exercise, or plenitude; in which cases, full living would be injurious: we are reasonably to support the constitution, but not by much animal food, in thus making an effort\* to relieve itself.

If any man will examine the list of his patients, particularly young females, who were reduced by regimen or medicine, and such as were moderately supported under sanguinary discharges; where there was any reason to suppose the existence of hereditary acrimony, weakness, obstruction, or disease†, I am persuaded  
he

\* I recollect having seen a young lady, who, after an incomplete small-pox, got an eruption on her chin, which continued for three years. An issue was made in her arm; and, on the tenth day after the introduction of the pea, a profuse bleeding from her nose, came on, after which the eruption disappeared, and did not return. The cure was falsely attributed to an old woman who advised the issue.

† I lately attended a gentleman eighteen years old, who, from the age of ten, was troubled with chalky scabs on his  
head,



he will judge it right to submit, in a great degree, to the calls of instinctive appetite ; except in very young subjects, whose diet should, at all times, be subject to certain regulations, particularly as to flesh meat, too much of which is made use of in most families.

head, and most parts of his body. He was suddenly seized with a bleeding at his nose, which continued, with very little remission, for three days ; after which the eruptions vanished, and did not return.

## CHAP. XVI.

BLEEDING from piles, or the Rectum, generally comes on at a middle or latter stage of life, yet sometimes it presents in young, weakly, or morbid constitutions. If this discharge was to be restrained, it should not be suddenly; and, indeed, it were better not to repress it at all, except there appeared a danger of extreme debility in consequence of the repeated loss of blood: in such case we must look to the present distress, and take our chance of what may follow. I have experienced an effectual purgative dose, so as completely to empty the entire intestinal canal, highly useful; having often found that the lodgment of hardened fæces, the consequence of defective secretions, of bile, or a naturally languid state of the intestines, had obstructed and restrained circulation so much, as to oblige contiguous vessels to burst. Therefore, if such cause should exist, its bad effects must continue until removed, which cannot be so well done by a clyster, as that may not reach to the lodgment; besides, the anus, in such cases, is not always in a state to bear such a remedy. The hands and feet should be bathed in warm water, to encourage circulation to the extremities. The warmth of the surface should also be increased,

creased, in order to induce perspiration. Such proceeding is more necessary when the blood comes from a distance internally; but when there is a painful distention of the hæmorrhoidal vessels externally, and no blood comes, the present practice is to apply leeches, thereby to discharge what had better come away by bursting, when more matured; besides, it is sometimes difficult to restrain bleeding brought on by such long continued suction in parts so relaxed; therefore, I wish rather to avoid this step; and as in adult males, piles may, perhaps, be a substitute or forerunner of gout; also, in general, a critical necessitous discharge from some cause; and in females answering for a certain defect in constitution. So suddenly and prematurely evacuating the contained blood, is not always attended with good consequences; yet, if the turgid tense, and painful inflammation, requires relaxation so much as that we cannot wait for a regular or natural bursting, leeches\* are much more safe than the lancet.

When the parts, if raw or excoriated, become intolerably painful, and discharge acrid humour  
which

\* When the vessels are supposed to come to the greatest stage of turgescence, I think it better that the contained blood should be drawn off, than permitted to return into the circulation; and there is no other mode so safe, as by leeches. However, they should not be applied too frequently: I have seen a cancer in the anus produced by their repeated employment.



which excoriates, I have found the greatest sudden relief procured by the application of a liniment, composed of three ounces of oil, and one drachm of the extract of Saturn, well shaken in the bottle before use: this, though not an absolute repeller, extinguishes vital feeling; for which reason it should be sparingly and cautiously applied, and only where pain, and the want of rest, authorises our running some small risk. Sulphur, or sulphureous waters, are useful, particularly if they keep the body open; which end is answered by lenitive electuary, or whole mustard feed.

After a series of bleeding, when vessels have lost their contracting power, became painful and troublesome; it may be safe and necessary to remove by ligature\*, such as are most elongated, indurated, and inconvenient; particularly if the symptoms which preceded their increase, and attended their continuance, have vanished, and the patient determines on a life of more regularity: yet this step should be resolved on with the greatest deliberation, and not until the good effects of regimen, warmth on the lower extremities, and proper means to mend the constitution

\* I recollect two instances of young gentlemen, who, on the second appearance of troublesome piles, had them removed by ligature: for some few years after, they were both subject to fevers, attended by eruptions and head-achs; after which, one became perfectly well, the other fell into a decline.

stitution have been put in execution ; for then the remnant of disorder may be considered as local, the removal\* of which may become absolutely necessary to prevent future disease in the part.

I recollect the case of the late Lord Newhaven, who, in order to avoid the inconvenience of repeated periodical discharges of blood from hæmorrhoids, was advised to bleed in the arm whenever he found any symptoms of plenitude threatening a return. But, on a future expected bursting from the part, he was seized with an epileptic fit ; and repeatedly so for years, until at length he expired in an apoplexy ; the bleeding from the piles never having returned. This Nobleman was of the most athletic form, an early riser, and led a very temperate life : therefore if an experiment could have been safe, it was in such a habit. It may appear rather indelicate to have mentioned the name of an individual ; but, where the welfare of mankind is so deeply concerned, an excuse may be pleaded, as it encreases the authenticity of the fact,

On

\* I have known many instances where enlarged vessels, after long discharging of blood, became so painful as not to be borne ; and, on removal, instant ease ensued, and no bad consequences followed. It is frequently necessary to pass a needle and double thread through the substance, which is too thick to enclose by one ligature,

On the whole, it is extremely dangerous to attempt restraining sanguinary discharges from almost any part. The practice of making issues in such cases, though in some particular constitutions it may answer a good end, yet is not found to be so certain a substitute for the late discharge, as could be wished. I would rely principally on temperance, exercise, warmth particularly on the extremities, and an open state of body; avoiding rich milk, soups, fish, or such sustenance as may create blood too plentifully. And, if eruptions, an erysipelas, or new appearance of any kind, present, let such be considered as necessary efforts of the constitution. Alterative medicines should be used only in case of too long continuance of what might be found weakening or inconvenient to bear, and always with intention to correct causes in the habit which produced the original complaint.

Whoever has piles, should take all liquors cold, refrain from milk, fish, soups, and other rich sustenance; keep the feet and body warm; never stand with the back to a fire; and flannel drawers should always be worn.



## CHAP. XVII.

BLOOD is sometimes discharged by vomiting, finding its way from the liver, or vena portarum, into the intestine, and from thence to the stomach. In such cases it is generally thick, and rather dark coloured; and though the quantity of it may be great, yet the complaint is seldom fatal, except in consequence of a preceding morbid obstruction, either from continued intemperance, or constitutional chronic disease; and here, even, it may produce temporary relief; and may be considered often as a natural effort. In this as well as most hepatic disorders, an abstinence from flesh meat, wine, and rich food, is more necessary than in the same degree of fulness or disease from any cause in other parts. And as sometimes the confinement of hardened fæces, continues to keep up this discharge, care should be taken effectually to free the bowels with castor-oil and tincture of senna, or some such purgative. I have often seen this disorder in youth of the female sex, from improper diet \* and want of exercise, particularly where

\* This disorder frequently arises among the very lowest orders, when provisions are scarce and damaged; consequently,

where some degree of hereditary acrimony existed. In advanced life, it is sometimes followed by a dropfy, owing both to the loss and consequent impoverishment of blood, and to the obstructed state of the liver, previous to this discharge. In such cases, blood-letting seldom answers any good end, except where cold, added to intemperance, had suddenly produced it; and then the bleeding should seldom be repeated. Wine and water may be allowed, in a moderate quantity, provided the subject is not of a sanguinary complexion and full habit. But, above all things, to procure a continued open state of the bowels, should be our principal design: without which, hepatic disorders are seldom removed.

quently, the juices become corrupt and putrid: it is called the Red Vomit; in the Irish language, Lean Roe, and is only got the better of by a melioration of food, and very warm purgatives. Much flesh meat, and strong malt liquors, without a sufficient mixture of vegetables or bread, often occasions an overcharge of the liver in young subjects, who do not exercise in proportion to such indulgence.

## CHAP. XVIII.

THE discharge of blood by spitting, and from the lungs, though not always fatal, is yet dangerous according to the size or number of ruptured vessels, and in proportion to its attenuated florid or frothy state. In such cases it is judged to be arterial; for the blood issuing from ruptured veins, is thick and dark, which does not froth; and so far from being universally fatal, it is often followed by the most beneficial consequences. The first, I consider as partly acute and inflammatory; the latter, more chronic and critical; though both arising from constitutional causes.

The idea of any person bursting\* a blood-vessel, except from a state of unnatural plenitude, or violent exercise is ill-founded. Such rupture in general, proceeds from acrid juices, relaxed solids, absolute pulmonic obstruction, hereditary taint, or by cold and fever, where it has been instantly fatal. The same reasoning holds

\* Man might be considered as the most wretched of all animals, if by extraordinary exertions, in an healthy state, he was liable to burst a vessel, and discharge blood from any part.



holds against bleeding as well in this as any other spontaneous discharge of blood; yet, plenitude, particularly in the head, or oppressed breathing, accompanying such discharge, authorises our taking away some blood\* from the arm. And, instead of immediate strong astringents, I think it more safe to give almond milk at first, in which a small quantity of nitre had been dissolved. This contributes to cool and temper feverish ardor, and facilitates the discharge, particularly if thick: our attempting suddenly to restrain which, might endanger suffocation; but such drink should not be continued long, nor taken too warm, as it may thin the blood over much.

This complaint is more alarming among males than females. In either sex, if matter follows, we have reason to suspect such to proceed from an ulcer, the digestion of which, however, is necessary; and it is only according to the quality of the matter so thrown off, that we are to determine such discharge to be favourable, or otherwise; that which is thick, slimy, or saponaceous, not being so dangerous as where it is short, putrid,

\* Bloodletting is employed more from custom than reason; and should not, in general, be oftener practised here than when blood is discharged in the commencement of a putrid fever, in consequence of a dissolved state: and it is only by the breathing that we should determine it either necessary or not.

trid, and mixed with blood. For, as suppuration frequently precedes healing, in any part, we are not entirely to despair, though this appearance do present, but to use such mild pectorals as oppress least; and carefully to avoid astringents so long as we can with safety.

I have known parts to heal, and the patient to enjoy good health, after the most alarming bleedings, which had certainly come directly from the lungs: and though even morbid obstruction should exist, yet such diseased blood is better parted with than retained. I have observed the worst conditioned ulcers \*, which had eluded the power of mercury and all medicinal correction, unexpectedly to burst forth such quantities of blood, as seemed likely to prove instantly fatal; on the ceasing of which, the parts suddenly assumed an healthy appearance, and soon after became completely well. It is, therefore, hard to say what may be the effect of a copious hæmorrhage from any part, especially if unprovoked. The disease is certainly diminished, in many instances, though the body is reduced; I would, therefore, only use lenient measures; and such, with a view to abate and cool

\* This is frequently the case in ulcers of the prepuce and glans penis, after all venereal virus had been removed. The worst ulcerated cancers, likewise, assume kinder appearances for some days after a spontaneous hæmorrhage from the part: by such observations, I suppose, the ancients applied toads to cancerous breasts.

cool the disturbed circulation; neither expecting to succeed by those specifics, termed styptics; nor aiming at a reduction of that vital principle implanted in nature, to support life and expel \* disease; and without various exertions of which, youth, particularly in constitutional complaints, never could arrive at a state of convalescence.

Numerous remedies are highly spoken of for stopping what is called a spitting of blood, among which common salt has sometimes proved effectual: this more immediately enters and mixes with the circulation, than any other so powerful a remedy that we could take in at the mouth; and also communicates its astringent and antiseptic qualities; which latter virtue, gives it an additional advantage above other astringents, particularly in cases where hereditary taint exists in any degree.

Alum and vitriolic acid †, though great astringents, are not so safe, as they bind the bowels too much,

\* I recollect having opened a youth of twenty-five years old, who, early in life, had a spitting of blood, and died in consequence of an over-dose of opium, taken by mistake. The lungs were not in any degree ulcerated, nor did they shew marks of disease, except being more lax than those parts generally are, in habits perfectly healthy.

† Acids are more proper to employ when the blood discharged is thin and florid, than where it is in a more viscid state. In either cases, particularly the first, some practitioners have recommended



much, and are only to be tried, if the salt does not answer, and the bleeding continues. So long as the patient is not much exhausted, I should be inclined to hope that the discharge might ultimately turn out critically favourable ; I therefore would not persist too far in rigorous treatment. At this period, our great resource seems to be in regimen, which should be with intention of giving consistence to the blood, and tone to the solids. I therefore would allow a little white meats, or any young flesh meat, and light red wine or hock, with bread and such vegetables as are not flatulent: the extreme reducing diet, as I mentioned before, being in the end equally ineffectual, and cutting us off from the chance of any material critical effort presenting in other parts or forms. I have known that when bleeding arose from an attenuated state of the blood, without actual ulceration of the lungs, success had in many cases followed the use of red wine\*, allowing the drinking of no other fluid at dinner, except

recommended Bark ; which in my opinion, is objectionable in most complaints of the chest or lungs ; as if those parts are suddenly contracted, they might not readily expand, consequently, fever, with difficult respiration, would encrease.

\* I have not observed much benefit to arise from asses milk ; and should rather prefer fresh buttermilk for breakfast ; from its acidity opposing putrescence, at the same time sufficiently nutritive.

except water, and the latter not in any great quantity. Those were cases of females; and even in languid male constitutions, we might expect the same success.

I have observed, on attempting suddenly to oppose discharges, dry up ulcers, or suppress eruptions, blood has often forced its way either by the kidneys, or into some cavity. I have also seen different critical favourable changes, succeed to most alarming effusions of blood; which could not have taken place, had bleeding, and a vegetable diet been closely adhered to. Gout, acrimony, and many hereditary complaints, being now so general, blood-letting, and other means to reduce, are not so proper in the present age, as in former periods when these diseases were less known. When all other measures are found ineffectual, a foreign warm climate is generally determined on. Doubtless had such a step been taken before any morbid appearance, evidently corrupt, presented, it is possible the increased perspiration might have been attended with salutary consequences: but in the latter stage of this complaint, intense heat only thins the blood more, and brings about a fatal period much sooner.

I recollect the case of an ingenious student of this city, who laboured under an acrimonious  
hæmoptoe

hæmoptoe and consumptive expectoration, he was ordered to a dry mountain air, where, whilst remaining, he was really convalescent; but being afterwards advised to go to Portugal, had scarcely been there an entire week, until he became so relaxed and reduced, as suddenly to melt down. Delicacy to an inconsolable parent, prevents my naming a fine young officer, who had a pulmonic phthisis, with purulent discharge and night sweats. He was sent to Lisbon: a voyage of three weeks passed without a drop of blood from the lungs, sweats or expectoration; owing, I suppose, to the astringency of the sea air. A very few days after his landing, the fatal arrer was cleared off, by sudden and copious renewals of sanguinary discharges, under which he sunk.

Bleedings from any parts, may for a time be restrained either by local styptics, internal astringents, or repeated blood-letting; but, if they be the effects of great causes, the mouths of vessels shall open again, a substituting evacuation possibly less favourable follows; obstruction is more confirmed; or fever, uncertain in its event, sets in. However, at an early time of life, the constitution finds so many resources, that we are not entirely to despair, though no exertion of art be attended with success; and all experiments which operate so powerfully as to enfeeble, should be avoided.



On the whole, where a sanguinary discharge by spitting, comes on in youth, from excess of any kind, provided that the constitution had been previously healthy, after blood-letting I would prescribe abstinence from wine, flesh meat, and every thing inflammatory, considering the complaint as acute and recent. But, when there is reason to suspect hereditary taint, or any constitutional debility threatening some disease, and where the countenance, previous to this appearance, had indicated a decline of health, I would advise a moderate quantity of light wine and white meats to support the natural powers, in throwing off the disease, either by repeated efforts, or some matured crisis, in different forms, which blood-letting or any other reducing evacuations would prevent.

A nobleman of this kingdom, thirty years old, of a pale complexion, who led rather a free life, was suddenly seized with a spitting of blood: he was bled plentifully in the arm; after which the bleeding ceased, but it returned at the end of a month. He was again let blood, and so repeatedly, whenever the complaint appeared; by which his stomach became so weak as not to bear animal food. He was afterwards seized with vomitings and head-achs, languished for some months, then died suddenly. On opening the body, all parts appeared sound; but in the right ventricle of the brain, a large stone or calculous

calculous substance was discovered; therefore little doubt remained of the cause of his death.

Some years afterwards, I was called to his nephew and successor. On his spitting up a considerable quantity of blood, without any cause given, he wished to have blood taken away; which I opposed, and only freed his bowels by a mild purgative. The bleeding gradually abated; and, on the ninth day from its commencement, a complete gout appeared in the great toe. He now has moderate and regular gouty fits, though not frequently. Had he been treated as his uncle was, it is mere chance where the seeds of this immature disease\* might have fixed their abode.

I lately visited a gentleman, forty years old, who, from leading a recluse, abstemious life, became pale and weakly. He was seized with a spitting of blood; for which, previous to my attendance, he had been bled, deprived of wine, and put on a vegetable diet. This course I advised

\* I was well acquainted with an eminent accoucher, who was frequently obliged to get out of bed in perspirations, the effects of which, from a natural strength of constitution, were not immediately perceived: generally twice in the year he was seized with a spitting of thick discoloured blood, without fever, which continued copious for some days; afterwards gradually diminished, not attended by any bad consequence.

vised immediately to be changed: allowing a moderate quantity of wine and white meat. Soon after, some more blood was discharged; yet his strength increased, and an eruption presented on his face, which continues. From every appearance, we have reason to suppose that he will not have any return of the disorder.

The exceptions to blood-letting and vegetable diet, are still stronger in female cases of this description.

The theory\* which I mean to support in supposing that most discharges of blood present and continue from debility as well as from acrimony, is in a great degree confirmed by the progress of a wound of magnitude or abscess which terminates fatally. The first stage of discharge is matter  
of

\* I recollect the case of a young Nobleman, of a pale complexion, who had a large abscess on his neck, which suddenly produced more matter than could be supposed to be formed in the part. He became weak; and the discharge soon changed to absolute blood. This alteration which arose from debility, was improperly considered as inflammatory. He was put on a vegetable diet, and sent to Bristol; where he soon became dropsical, and died. Another instance of the like nature offering, I immediately ordered wine and flesh meat; which produced a return of digestion, followed by recovery. The Bark was not administered; as, by contracting, it would have counteracted the regular oscillatory action in the feeble extremities of capillary vessels, necessary to concoct and form matter.



of some kind; afterward, when the powers for digestion fail, previous to dissolution, nothing but blood issues from the part. When the like appearance presents in blisters, the patient seldom recovers.

## CHAP. XIX.

AS blood-letting is considered at least a doubtful measure in both the constitution and complaints heretofore treated of, we wish to discriminate where it may be salutary and necessary, and where injurious. The healthy of either sex, particularly of males who labour or exercise much in open air, and in their occasional exertions perspire freely; if sudden fever is produced by cold, causing pain or oppression, require early bleeding, especially if the veins are large; but where either sex lead a sedentary life, feed voluptuously, and have small vessels, limbs not muscular, and are of bilious or pallid complexions; in such subjects, taking away blood is generally unnecessary, and perhaps unsafe.

Attacks in these habits are more likely to yield to purging, or other natural discharges, and secretions encreased. However, in constitutions even of this description, if illness commences painful, by inflammation of the liver, pleura, or lungs, some blood taken away relieves any of those parts, the latter particularly, which performs the double office of respiration and sanguification; and also acts by despumation, thus clearing

clearing away the effects of inflammatory attacks on the liver, contents of the chest, or circulating vessels at large.

Should the blood drawn appear inflamed, a repetition of the operation may be necessary; for this measure in a moderate degree, or gentle perspirations, do not counteract or check expectoration; while too copious purgings, or forced sweats, are usually attended with such bad consequences. And as more gross matter is thrown off by spitting than could be discharged by the skin, or any other natural secretion, the attempting to restrain or alter such salutary regular course, might prove suddenly fatal\*.

I recollect having attended a lady who was seized with an inflammation of the liver: chocolate-coloured spitting soon commenced in great quantities; and though extremely troublesome,  
it

\* If blood is to be taken from the arm, observe to put on your ligature rather high: otherwise you prevent the vein from rising full. Then collect all the lax skin you can, and hold it behind the elbow, with the fingers of the hand with which you do not intend to operate. Then drop your thumb, only as a guide; it being unnecessary to press the part, as the vein, by the skin's being drawn backwards, remains fixed, and rises nearer to the surface. Thus you can with more ease and certainty divide the skin when tense than if relaxed. The same method may be put into execution on any other part which you can enclose in your grasp.



it yet absolutely afforded relief. She was afterwards privately advised to take James's powder, which she did ; it purged her profusely ; the spitting stopped, and she suddenly expired.

Sometimes the patient conceives more power and infallibility to exist in the physician, than the latter pretends to ; therefore, to preserve confidence, gentlemen of that profession are obliged frequently to make changes not absolutely necessary. However, in cases where great critical secretions or discharges are going on, (such particularly as copious expectoration) which though profuse, is not the more weakening, we should be cautious in the employment of measures, by whose operation the course of this natural crisis might be fatally interrupted, though blistering and every other substituting means are put into execution.

An opinion prevails, that if the bowels \* are not constantly kept regularly evacuating, excrement shall become so acrid as to produce future purgings. This tempts the practitioner to be too busy with repeated purgative doses ; when after effectually unloading the intestines, stools would be more safely produced by clysters. The patient

\* The fulness of the belly in a great measure determines the necessity of purging ; and in all such cases, the purgatives should be rather warm, till fulness and flatulency is removed.

tient too often objects to this practice ; but in cases of danger, all false delicacy should be laid aside. However, if this prejudice (confined only to a few countries) cannot be overcome, manna dissolved in white wine whey, oil of castor, or some such lenient purge, may answer, and shall not counteract nature's regular progress. This we should have particularly in view ; as expectoration, though tedious, is the most critical, salutary, effectual effort ; and perhaps the only means that the constitution can exert, for the relief either of partial internal inflammation, obstruction, or the blood at large, particularly in advanced life, when insensible perspiration fails.

Most animals throw off the effect of cold and other disorders by a running at the nose ; whilst man, in aid of that resource, has the benefit of expectoration, which therefore should in all cases be rather promoted than restrained. The drink may be composed of ptyſan, or toast and water moderately warm, which are preferable to a constant use of two-milk whey ; as this creates rich blood too plentifully. The pectorals \* also  
should

\* When phlegm becomes so thick as not to be expectorated, death must follow ; therefore, in all such cases, it is prudent early to employ a little nitre in our pectorals, but not so much as to chill, which effect may be counteracted by the addition of some juniper water. In most cases, the ammoniac mixture, with squills, answers a good end. Also equal parts of vinegar, diacodium, and common treacle.

should be taken only in such small quantities as shall not overload the stomach; a fulness of which impedes the action of the lungs, on whose free exertion recovery so much depends.



## CHAP. XX.

THE tonsils or glands of the throat, when large and relaxed, as in particular habits, feel the effects of cold and suppressed perspiration more than other glands which are protected by thicker integuments. The diseased appearance is turgid and inflamed, and in general attended by high fever; and frequently, from heat and tension, blister or ulcerate in part: at which, however, we are not to be alarmed, nor treat the complaint otherwise than as inflammatory \*.

The immediate necessary first step is to empty, by calomel, oil of castor, infusion of tamarinds, or some certain purgative; costiveness alone having been known in part to produce the complaint, at least to encrease it, by preventing the blood from ascending or returning freely; consequently causing the more to mount to superior parts.

If

\* I have known great reputation acquired by the administering of bark in slight ulcerations of the throat, where the inflammation and obstruction of the gland decided it was improper; but happily the patient got well before any bad effect could be produced from the operation of this tonic.

If the symptoms run so high as to call for bleeding, it should not be omitted; particularly when the head feels full, or the breathing affected, and the patient on former occasions had used this remedy \*. The limbs should be bathed so long as to create sufficient warmth; a blister may also be applied between the shoulders, which when employed early in this complaint, seldom fails to relieve. However, I would not advise an immediate repetition of such a measure, which might interfere too much with the regular and natural termination; as perspiration, eruptions on the surface, or suppuration; without one of which crisis, inflammations of those parts seldom subside.

If seeds of gout should exist, a degree of scurvy, suppressed piles, female obstructions, or constitutional acrimony; bleeding, blistering, and other active measures should be used with great caution: and as from observation we find what is commonly called sore throats, to continue for a certain number of days, though the

\* I knew a young gentleman of athletic form, who got an inflammation of the throat, but by some neglect was not bled as usual; in the night he became delirious, threw himself out of a window, and was killed by the fall. Probably had he lost a small quantity of blood, such accident would not have taken place. Measures of a doubtful nature, though they might have been early avoided, yet where the constitution becomes habituated to them, should not be withheld, particularly in acute diseases.

the most powerful remedies are employed; it may be supposed they are often critical effects of constitutional causes in both sexes, particularly the female, which therefore ought not to be too forcibly suppressed, even if in our power.

Sometimes the fear of immediate suffocation, or perishing from inability to drink, calls for every exertion to procure perspiration, without which those glands when inflamed, seldom subside. This is generally effected by James's powder or pulvis antimonialis, assisted at the same time by an increased warmth of covering, which will contribute much to obtain that end. But I should rather begin with nitre, which cools and attenuates; consequently causes feverish ardour to abate, and the pores of the skin to open \*. By using a certain portion of this medicine, also in a gargle, or mixed with powdered sugar, and conveyed to the part, we thin phlegm, and dispose the glands to unload themselves, by throwing out saliva, which gives temporary relief. Acids, of a moderate strength, may be used at times only; they contribute to cleanse and refresh;

\* Nothing can contribute more to encourage perspiration, than bathing the hands up to the elbows in warm water, which may be repeated frequently in the day, with little inconvenience: they should afterwards be covered with flannel; however, the feet should not be omitted, when convenient.



refresh: but as local applications can only mitigate, not remove effectually the disease, we must chiefly rely on perspiration, which is always retarded and counteracted by much purging, except such is spontaneous.

Should the inflammation entirely prevent swallowing, we are not even then to despair. I once attended a lady, who from a long paralytic affection of the muscles of her throat, at length became unable to get down a single drop of any kind of fluid, in which state she languished till the tenth morning. Two days preceding her death, she observed, that her case might serve as an instance to inform the faculty how long life could exist without drink. Therefore we are not to be too much alarmed on this account, as some good consequences might follow such long abstinence from any fluid.

When the part is so much overcharged, that suppuration must take place, (which more frequently happens in females than males) perhaps the hand of art might be necessary; yet I should be inclined to wait for the natural bursting; though even here there can be no general rule, further than to observe, that the more matured all critical collections are, the better is their effect on the habit. And indeed most inflammatory tumors, when suppurated, to a certainty burst:  
but

but this critical \* situation may call either for the introduction of a finger dipped in warm oil, on which I sometimes found the part to burst; or in certain cases, the lancet well contrived for such purposes may be used.

As for the operation of opening the larynx, I hope it is seldom necessary; yet it is well to find we have it in our power. On the whole, I have found that many inflammations of the tonsils are the effects of constitutional causes †, excited by cold

\* I recommend to the surgeon to be very circumspect in examining minutely whether any suppurated tumor exists, as sometimes instant relief is afforded by evacuating matter, which not discharged, might occasion suffocation; at the same time glandular parts, from their elasticity, shall appear to have suppurated, though still in a state of inflammation, and not safe to pierce.

† I have known a lady of a very scorbutic habit, who was subject to an annual and periodical inflammation of both tonsils, which sometimes suppurated; but being told that she might get rid of this complaint on its appearance by timely bleeding; she accordingly had ten ounces of blood taken away, which was repeated on the second day. The inflammation subsided; she was then seized with a stitch in her side, for which farther bleeding was judged necessary. As the last blood appeared much inflamed, blistering was also employed, but she expired on the seventh day. Her death was certainly occasioned by the two first bleedings counteracting the necessary exerting power in the constitution to free the habit by the accustomed course.

cold or plenitude; therefore bleeding\*, blistering, and other energetic measures, should not be over employed, as so much sudden evacuation and reduction of the strength, may produce a metastasis or translation of peccant humour to the lungs, brain, or some other part: which danger we a great degree avoid by the encouragement of perspiration, or any salutary appearances presenting on the surface.

\* The late General Washington died of a putrid sore throat, which at first was inflammatory; but on being bled profusely a second time, the disorder suddenly became putrid. It is supposed that the first bleeding might not have been hurtful; after which, had the constitution been supported, agreeable to his time of life, some favorable change might have taken place: certainly, in many cases one bleeding may tend to abate an inflammation; and a second might so reduce, as to produce putrescence.



## CHAP. XXI.

THE constitution shapes a disease \*. Infection is but the seed, yeast, or specific excitement, which is clearly instanced in small-pox, and sore throats. The same variolous matter, which by inoculation shall produce a mild eruption in one habit, brings forth a most malignant confluent disease in another. The cold, or any immediate cause which simply inflames the glands of the throat in one person, shall occasion ulceration and putrefaction in his neighbour. Such difference of constitution producing such different consequences, could not have existed in our original formation. Those errors, and that mismanagement, previously accounted for, introduced the alteration so much to the disadvantage of succeeding generations. Many disorders, which at first view appear local, are but so many symptomatic affections,

\* I recollect visiting two young men in fevers, from sleeping in a damp room; one got well in five days by a profuse perspiration; the other continued dangerously ill until the one and twentieth day, when an eruption presented. This difference in their degrees of disorder arose from one being entirely free from any constitutional defects or complaint; the other had weak lungs, and was subject to night sweats, which being restrained, became morbid in the habit.

affections, proceeding from a languid and morbid state of juices; the commencement of which is commonly detected in the throat or fauces, on which likewise many diseases fix for their termination. Perhaps the laxity and sponginess of those parts, and their more immediate communication with the heated breath, may be, in some measure, causes why those situations are first attacked, and putrescence spreads there so rapidly. The strongest illustration of this is in the putrid sore throat; which according to the depravity of humours, debility of solids, number, and magnitude of excitements, makes more or less progress. The worst kind being generally attended with low fever, weak pulse, clammy skin, want of rest, fixed pain in the head, and other symptoms of morbid tendency, which if not soon counteracted, terminates fatally.

In all such cases, we give wine and bark freely: the first to support and invigorate; the second to correct and counteract that melting increase of disease threatening dissolution. Yet either of those means may be pushed too far; particularly the latter, as a certain degree of suppuration and digestion is requisite to throw off a foul slough, which always sooner or later appears. Now the use of bark being to inspissate, counteract, and correct the acid humour which has fallen on those parts, it is only to be employed while they are in such a condition: for when this end

is answered, the salutary suppuration will follow better by a timely suspension of that tonic, which then would contract too much, at least keep matters stationary. At this period, therefore, I should not hesitate to discontinue every astringent, and rely on wine and cordials alone; amongst which, the confect. cardiac. deserves a preference. When a medicine ranks high in repute, the practitioner often thinks he cannot prescribe it too largely—not in too many forms; therefore orders a decoction of bark, with some addition of acids, as a gargle \*. This gives much pain to a raw surface, and only encreases dryness, which is most injurious, the lubricity of those parts being then of the greatest consequence.

I remember an instance of a fine young lady suddenly and unexpectedly expiring after a reluctant use of such a gargle, when perhaps a mild deterfive wash might have given temporary ease.

Complaints are similar, though attacking different situations. No experienced practitioner could safely proceed to dry up a mortified sore, that required digestion and cleansing. If we wish to brace locally, where there is ulceration, that  
end

\* The gargle which I have found to prove useful in such cases, is composed of pectoral decoction and honey of roses, to which spirit of sea-salt may be added; but not so much of the latter as to give pain.



end is more successfully answered by vinous and spiritous gargles properly qualified, to which a little honey has been added. These cleanse and animate: bark dries. And since we cannot always stop the ravage of this partly constitutional disease, our topical applications should be such as should not impede the tender shoots of incarnation, and the regeneration of perished parts, so necessary for a complete recovery.

It is absolutely unsafe to attempt sudden healing, where there is a loss of substance, before regenerant juices have filled the space; which bad effect would certainly result from an improper use of the bark locally applied, or by too long a continuance of its employment internally.

Such observations have arisen from long experience, and are not repugnant to reason. When any disorder is considered of a mortal tendency, the young practitioner naturally concludes that appearances which wear the most distant resemblance of it, are at least commencements of the much dreaded malady. Through such misconceptions and fears, powerful remedies are often unnecessarily employed: which is the case particularly in sore throats. I have frequently been alarmed at discovering foul inspissated mucus spread over the fauces; and on the removal, by the handle of a spoon covered with  
linen,

linen, have found the parts florid and found underneath. This appearance calls for the use of deterfive gargles; perhaps fumigation of vinegar, an open state of body, and more cooling treatment, than putrid ulceration.

On the whole, when mortifications in any situations proceed from an humoral depravity which continues, and where the constitution is not equal to the separation of the perished parts from the sound, bark for a time is highly necessary to oppose further encrease of disease: and more particularly in situations which cannot bear loss of substance. But, in a languid state of body, and particularly when far advanced in life, where any parts of the extremities wither and shrink, I fear the continued use of bark would only confirm the dryness, rigidity of fibre, and perished state of capillary vessels. The one I should call an humoral disease, attendant on an early or middle time of life: the other, being more in consequence of impair, age, and decay; which if good wine, warm cordials and succulent nutriment shall not counteract; bark in any great quantity I fear shall harden, and not alter for the better.

The ingenious Mr. Potts observed that he had succeeded by opium, when the bark had failed. I imagine this may be explained, from his having overbraced by bark, which opium relaxed; consequently,

frequently, digestion and incarnation followed. Both those medicines might have had their use, for a certain time ; each thus checking the abuse of the other. But in old subjects, I would prescribe bark only to increase the powers of digestion ; to brace and correct in a certain degree ; occasionally interposing a small quantity of opium, such as should not relax and enfeeble : for all experimental practice, and the use of powerful medicines should be strictly limited.



## CHAP. XXII.

OF later years, young children, particularly in the great towns of England and Ireland, eat too much animal food, and drink more warm sweetened fluids than are necessary for dilution; at the same time that they use too little exercise, consequently the liver in such is supposed (as appears in high-fed calves and fatted fowls \*) to acquire an early growth and increase, exceeding the natural size and proportion. It accordingly sooner or later becomes, if not obstructed, at least so lax and supine as to be incapable of performing and unloading itself of its secretions regularly. The bile therefore cannot be discharged into the gut so uninterruptedly, as the exigencies of the animal economy may require. In such a state, at certain times, either sex, particularly when come to maturity, feels what is generally called bilious; which affection is increased in the male from repeated full living, and in the female from want of that degree of exercise necessary to correct their natural relaxation of frame: for,

\* In parts of the world where the liver of fowls is considered as a luxury, they feed geese on figs, to which a quantity of sugar is added; and by keeping them in a warm confined place, that bowels is increased to an incredible size.

for, in proportion to the richness of our aliment, sedentary life, and warmth to relaxation, the blood becomes more weak, though rich, not being freed from the unctuous parts by a complete hepatic secretion. Hence debility and lassitude are perceived; flatulency \* and indigestion complained of; the natural, clear complexion changes; the nose grows red; pimples are thrown out, particularly on the face; piles come down; erysipelases, and anthraxes present; and finally, perhaps periodical gout may take place, or gallstones form. Now, though such appearances may be considered as original disorders, they are, notwithstanding, all of them necessary effects; and some of them salutary consequences, resulting from a previously existing cause. Doubtless an entire change in regimen, with strict abstinence, particularly from flesh, malt liquors, and wine; or a considerable diminution in the use of them, might produce a material alteration for the better; but such reform requires more resolution than man is in general possessed of: for  
when

\* When bile does not flow regularly, the aliment which comes into the intestine is retarded. Hence the stomach, impeded from discharging its contents, feels loaded, and wind is thrown up. In case of actual obstruction, the anterior lobe of the liver becomes distended, consequently presses on the stomach, which must occasion eructations; particular passions in irritable habits produce such effects. Horace says, speaking of love with jealousy,

*“Vae miserum, fervens difficili bile tumet jecur.”*

when an overcharged state of the liver is produced by early mismanagement, and our persisting afterwards in a voluptuous course, this bowel, for self-support, craves the usual supply\*, and thus excites to the gratification of appetite; consequently cause and effect jointly operate to further confirm the malady. In all such constitutions, discharges by the bowels are irregular, and sometimes suddenly suppressed; which state is attended by alarming and spasmodic affections, and would soon terminate fatally, if motions were not produced. When therefore clysters, in which soap is an excellent ingredient, do not answer, calomel should be tried, mixed with cathartic extract. If no good effect follows this, our best resource seems to be in tartar-emetic, which may be taken either mixed in oatmeal gruel, or in doses of a grain combined with five grains of scamony, repeated and increased at moderate intervals, until the end is answered; as it is the only effectual remedy we know in such desperate cases, and shall force motions when all other means fail.

The vapour of tobacco also may be administered by way of clyster, if we have reason to suppose a spasm or contraction still to exist: and though some eruption, or other critical appearance,

\* In proportion as the liver enlarges, so does the appetite encrease, till actual morbid obstruction takes place, or gall-stones form; then there is a dislike to all kinds of nourishment.



ance, might be expected ultimately to present, yet the alarming symptoms attending such attacks admit not of delay; and the constitution shall have a better chance of throwing out something critically relevant, when the bowels have been liberated.

In all those cases, though we find it necessary to evacuate plentifully, yet the after-treatment should not be too reducing, particularly if gout be supposed to have existed in the family, or critical eruptions \*, especially on the face, had suddenly vanished, or been incautiously repelled, as hath sometimes happened among females, where external appearance is more regarded than is consistent with health.

When we consider the magnitude of the liver, supplied with such a quantity of blood, enriched by circulation through the mesentery, and the important purposes an uninterrupted secretion of bile answers, we may readily account for the infinite train of complaints which must arise from so great a check in the animal economy †, as its  
overcharge

\* I recollect having attended a lady who had every symptom of gall-stones being formed; but after a severe spasmodic affection, amounting almost to convulsions, an eruption came out on her face, which continues, and has freed her from every complaint.

† Either sex who are bilious should not go into the cold bath, but particularly if piles had ever appeared, or the eyes at times were yellow or inflamed,

overcharge or obstruction must occasion. And though many ulcers, abscesses, tumors, eruptions, or secret discharges from either sex, and what are called fistulas in ano, seem to be local; yet such are generally the effects of some remote causes, which more usually proceed from a certain degree of debility, enlargement, or impair of that great bowel, than of any other part, especially among the higher orders of mankind: besides the improper conduct heretofore stated, feeds of hereditary acrimony too might early rest, and cause obstruction in so considerable a glandular part, where the circulation is slow, and particularly when errors in diet, much anxiety, too sedentary a life, or other mismanagement, are abetting causes. Therefore a reasonable diminution of butter, flesh-meat, strong malt-liquor, and wine, is principally necessary; and, for such as find it inconvenient to ride abroad, a chamber-horse is most useful; but the reduction of food is safer in quantity than quality; as an entire change from animal to vegetable diet, or from wine and malt-liquors to water, though for a short time it might appear salutary, yet would ultimately produce complaints more serious than those we meant to remove.

However, a certain regimen\* should be adhered

\* Though men of bilious habits may be thin in flesh, yet their blood is frequently too rich; therefore for those of this description,

hered to by every person arrived at the years of maturity, who has reason to suppose that bile may be redundant. First, suppers are to be restrained from; this third meal requires another process of digestion, consequently affords too great a supply of chyle, and thus further contributes to that redundancy which we wish to restrain. All drinks should be taken cold\*: they brace and strengthen the stomach, so as to prevent the rising or reversion of bile; and lastly, the quantity of meat and drink should be under what the instinctive appetite calls for, and slowly eaten.

I know, that a maxim prevails among the inhabitants of Great Britain, that the stomach should always be in operation, and never empty. Such state might answer a labouring man, or  
for

description, a moderate use of acids is proper; however, should gout be likely to take place, or gall-stones to form, all acids would then be injurious, and particularly for females, whose health so much depends on regularity in monthly changes. Vinegar given for two or three days to a milch cow, shall occasion her becoming dry and unhealthy.

\* Though tea does not create bile, yet by taking it too warm, the stomach becomes relaxed; and so encreases the bad effects of bile. Where bilious people feel weak, between breakfast and dinner, the yolk of an hard-boiled egg, eaten with salt, has very good effects; when any part of the egg swallowed raw would sicken the stomach: yet, either may be taken; the latter is more opening.



for one who is to be constantly in action : certainly the strength and spirits shall be increased for a time, but some parts of the machine sooner wear out, or at best lose their tone, and become diseased.

Wild animals, who must fast long, live to a greater age, than such of the same species who are domesticated and pampered. Abstinence and regularity are necessary to preserve health, handed down in its original purity. Hereditary acrimony, and disproportioned visceral formation, causing debility, call for such support and indulgence, as in a pure, natural, primitive state would create disease. So far, I consider bilious complaints as arising either from hereditary disproportion, or early and continued mismanagement. They also may be produced afterwards, from too much ease and indulgence \*, succeeding to a life of necessitous action and abstinence.

I have known a curate free from any remote symptom which bile occasions ; but when made a dean, and “ faring sumptuously every day,” he first became languid, though fat, then hypochondriac ;

\* Those who are bilious do not wish to exercise; their blood is weak, and perspiration soon comes on ; however, without a proper share of motion and action, the solids lose their power, and the complaint encreases : and above all things, the mind should be constantly employed ; and the more agreeably, the better digestion shall go on, even without exercise.

driac; and had not gout or some other critical appearance presented, total despair would have prevailed. Men in a trading line feel similar consequences from a supposed happy change of life and fortune. On leaving off the laborious exertions in their respective trades, they fall into unnatural fulness of flesh, become discontented, and desponding: yet, whilst the warm weather brings forward salutary perspirations, and admits of sufficient exercise in open air, existence is borne; but when the gloomy winter approaches, consequently the usual benefit from both is diminished, their own rash hands often close the scene. And though, strictly speaking, such characters cannot be deemed absolute lunatics, yet they are more or less insane, and perhaps could with proper management in time be restored to a better state; some by reasonable support, indulgence, and amusement; others by reduction, and a certain degree of restraint.

## CHAP. XXIII.

WHEN an obstruction of the liver, discovered either from unequivocal appearances and symptoms, or manual examination, has not given way to different deobstruent medicines, commonly prescribed in such cases; the present practice is to use mercurial frictions more copiously than in any other disorder for which mercury is employed. This mode of treatment is pursued in India with some success\* ; but in that climate, the complaint arises principally among the young Europeans, who might have been in their own country previously healthy ; and in whom therefore it may be considered as a recent or newly-acquired disease ; consequently the hope of a cure is much better founded, than when at an early age it may arise from glandular debility, or afterwards by a continued series of intemperance, persisted in to an advanced time of life, when the blood become broken down, the solids relaxed, and obstruction forms from debility

\* The intense heat of that climate, which in part created the disease, greatly impedes the cure. I knew some who had undergone a mercurial course in India, without effect ; afterwards, on return to Europe, had been perfectly cured, by the same process.



bility and atony. However, as we do not know of any other means so effectual to disperse a collecting or recently-formed internal enlargement, as by crude mercury, such a process may in many constitutions be considered as a safe experiment, regard being always had to the strength and age of the person so affected, and to the original state of constitution, previous to this complaint having taken place.

The course should be conducted differently from what is practised, where we wish solely to eradicate venereal virus; as in the latter case perspiration is principally to be encouraged, and the bowels prevented from becoming too laxative: but in liver obstruction, if a degree of purging \* does not at times come on, I fear our chance of success is uncertain. We should not therefore cover the body with so thick flannel, nor keep the chamber so warm as is customary in venereal cases; and the patient, if strong enough to admit of it, should at stated intervals be purged with calomel, aloes, and assafoetida. Castor oil, too, may be occasionally used to give the bowels a lax tendency. I have observed, that in order to remove confirmed diseases, for which it is judged necessary to use mercury on the surface, the frictions should be rather unremitting in the commencement for a given

\* Though a certain degree of purging may be necessary, yet purgatives should not be administered until the gums had been completely affected.

given time ; so as to charge the blood completely, whilst it possessed a certain degree of healthy consistence : for, when the juices become much dissolved, and solids relaxed by confinement, mercury further attenuates. Therefore, as this process in general does not last longer than two months, I would rub in the greatest portion during the first month ; so that the remaining part of the course should only be with a view to follow up the early advantage gained, and not to bring on absolute salivation.

I have toward the latter end of the confinement found good effects from gentle vomits, given at certain periods : they produce abdominal muscular action ; which assist the gall-bladder to discharge its contents. But as the administering of energetic medicines is sometimes more with intention to produce such salutary increased secretions and discharges as nature offers, to remove diseases, than from any specific quality they possess ; and that we have often observed what are called hepatic fluxes, to prove so critically favourable in liver affections ; I should give the more encouragement to this discharge. And though the flesh \* and strength may appear reduced

\* If the fulness in the part diminishes, we may proceed though the body should waste, it being one effect of mercury to reduce the habit even in cases where it is employed with the greatest success. At this period, the pulse is in general  
a proper

duced thereby, yet in the end we find the fulness to be more or less diminished; provided the original source of the disorder was not in such an habit, and from such a cause, as mercury in any shape would have been inimical to.

During the entire of this treatment I would recommend all drinks to be taken cool, as bilious habits are in general relaxed. Thin gruel, sweetened with honey, barley water, and ptyfan, or toast and water, are preferable at times to two-milk whey for a continuance: and during the confinement, the frequent exercise of a chamber-horse, and every other reasonable exertion should be allowed to forward circulation through a bowel so inert, even in its healthy state. After the process has been completely finished, though the fulness is not quite removed; yet when by change of air and well-chosen regimen, the wasted juices are wholesomely renewed and flesh returns; new blood may complete what further employment of medicine could not have accomplished.

At this critical period, no steps should be taken either to urge or counteract that natural progress to recovery of health, which is observed to arise in the habit, when reduced to the lowest state;

a proper guide, and the instant it is perceived to quicken, more than what mercury should occasion, or a cough to come on, we should desist, though in future to renew the process.



state; particularly after the employment of mercury, either for the removal of simple obstruction, or the eradicating of venereal contamination; in the first instance, we might destroy altogether the small share of irritability left in consequence of the over-excitement by the late use of mercury; whence the more minute vessels would become more languid and more prone to the renewal of obstruction: and in the second case, the lately extinguished sparks of infection might by the sudden restraint of natural secretions, fatally relumine\*.

As there is no process in medicine so powerful as a mercurial course by friction, so there is not any measure more exceptionable in many instances. It should not be commenced whilst the pulse is quick, or marked symptoms of fever appearing, except in venereal cases, where the encrease of contamination admits not of delay. A certain degree of firmness should exist in the solids, and consistence in the blood, to bear such reduction as this course shall occasion. The process should not continue too long, it having often been observed, that after a tedious course of mercury, the blood has become so reduced as to occasion a  
ferous

\* I have seen dreadful ophthalmias produced by the employment of the cold bath after a mercurial course and equally bad consequences from bark, I suppose by too suddenly restraining perspiration or any other secretion which had been liberal during the course.

ferous effusion into the abdomen or chest. The complaint should not manifestly arise from hereditary acrimony, which generally appears by an emaciated frame, or morbidly pale, though obese\*: and in all hepatic obstructions I would first advise calomel combined with aloe and assafoetida, squills, tartar emetic, &c. to be repeatedly tried; as some confinement might exist in the bile ducts, which when removed, the disorder would give way; as often happens at an early age, when this course is equally exceptionable as in advanced life; and in female cases there should be sufficient strength and youth to stand such reducing process, particularly

\* As mercury applied on the surface enters the system more effectually and with less distress on a tender constitution, than any mercurial preparations, all which must pass through the lacteals before they can affect the circulation at large, this process may be longer continued and more copiously employed than any other so powerful measure, yet if either sex should be subject to losses of blood, the male from piles or by the nose, the female in the natural or any other manner, mercurial frictions, except an encreasing obstruction was evident, venereal or other disease consuming, should be cautiously employed. I recollect having attended the wife of a lawyer, who had been married for twenty years, during which time she was mostly obstructed, consequently never pregnant, her husband contracted the venereal disease on circuit, which he communicated to her, they both went through a regular course of frictions, after which she proved with child; the wife of an attorney observing the success of this measure, underwent a similar mercurial process in hopes of a child, but being of a languid habit, and subject to losses of blood, she became dropsical and died.

cularly as this sex, from natural laxity of frame and weakness of blood, is more disposed to drop-fies than males : yet in some instances, where all deobstruents have failed, this experiment has succeeded.



## CHAP. XXIV.

WHEN a tumor, from any constitutional cause, forms near to the anus, becoming suddenly replete with matter, and that though we judiciously and without loss of time evacuate the part by a sufficient opening, it should yet happen that the rectum were found perforated, and afterwards it should terminate in a sinus narrower at the outward orifice than internally, still continuing to discharge. Such a state of disease is called fistula in ano, which has been hitherto thought incurable, except by the knife.

This operation Mr. Potts has simplified, by only dividing the gut, so as to cause an open and direct channel for the matter to run through uninterruptedly; which management, in a tolerable habit of body, generally produces a cure or termination of the complaint. However, as a sudden and fatal hæmorrhage has often followed an incision, from severing the hæmorrhoidal vessels, even by the most dexterous hand, which from their laxity, as well as inconvenience of situation, it is almost impossible to secure by ligature or pressure; and as, after a separation of the sphincter muscle, the retentive powers of the anus are never  
again

again completely regained. Such considerations call for an investigation of the probable origin of this disorder, and cause for its continuance, whilst measures are employed to avoid an operation, subject to the objections above stated.

I must first observe that the formation of matter is in most instances a necessitous and finished crisis, which should not be opposed or counteracted, where it can be discharged freely, nor checked or restrained, till we have reason to suppose the salutary ends for which it was instituted have been answered.

As the bad effects of suppressed or repelled humours are generally felt in either head, chest, subsequent obstruction in some bowel, or dangerous fever; and in no instance so much as where discharges offer near the anus, or common depending sewer of the body, as such are generally worse conditioned than those arising from any other parts, and consequently more clearing to the habit.

Our first step should be to ease the daily office of the gut, by producing regular or rather laxative motions. This is well effected by taking a breakfast of oatmeal and water boiled thick, in this country called stir-about\*; which being

\* The best mode of preparing this food is, by infusing the proportion of oatmeal, supposed sufficient for the intended

well boiled, loses its heating quality that it otherwise possesses, and is very diuretic; on which account it is found highly salutary where we attempt to dry up or divert an humour from any part. Drinking sulphureous waters also contributes to correct, without reduction of strength; the quantity should be regulated according to the time of life and other constitutional circumstances of the patient. Tar water also, if it does not prove heating, is an excellent corrector of the juices, and has often been found serviceable in such cases, particularly in old subjects of languid habits. The parts should be well and frequently sponged with warm water; and the feet guarded against cold: and during such treatment, the external orifice of the sinus is to be opened with a bougie, or waxed cloth, rolled small at the point, and suddenly encreasing in thickness. Should a passage be found into the gut, it may be bent, passed through, and brought out at the anus; then twisted, so as to remain in this situation for many hours. Thus we break through all obstructions, clear the sinus, render it more direct, and give sufficient irritation to afford fresh digestion; which perhaps, after some days trial,

on

tended quantity, in cold water for an hour before it is placed on the fire; afterwards, by slow boiling, it becomes smooth and pleasant to eat, either with milk, beer, or a small quantity of butter; after which a dish of tea may be taken to prevent thirst.



on its being withdrawn, may produce healing, if the constitution be so disposed.

The French method of introducing a leaden probe or wire \*, of a regular conical form, and turning it in like manner, is founded on reason: this metal being less inflaming than any other, lies in the part more easily; and as we find that lead, and all its preparations, possess a sedative quality or power to deaden inflammation, it is reasonable to expect such beneficial effects from its employment in such cases, did the bougie not answer, which should be first tried.

We have heard of some who were cut two or three times, and at length by another operation became cured: the fact being, that the constitutional cause latterly was more exhausted; so the then local complaint or remnant of disease was more readily done away. Be it however observed, that where an abscess in those parts proceeds from cold, costiveness, or external injury, so that such can certainly be deemed local; the sooner it is opened, cleansed, and healed, the more salutary to an habit in all other points previously healthy; as confined matter in any situation grows more morbid; and what originally was mild, and only in part diseased, thus becomes  
completely

\* A common seaton, smeared with detergent ointment to which verdigris is added, has often effected a cure.

completely contaminated, the bad effects of which may extend to the constitution at large, and occasion temporary fevers from repeated collections: in such latter cases, the gut is not always injured, if the opening is made in time \*.

Early in life, this disorder may arise from constitutional languid humour, in weakly habits: and as the drain may either relieve a disease of the lungs already formed, or prevent the future affection of those parts, we should not here proceed to stop it too hastily. At a middle age, where general plenitude, fulness of liver †, or too sedentary a life produces it, the latter being altered and amended, together with the strict observance of a proper regimen, may allow of a radical cure with safety; but in advanced years, cleanliness, warmth, attention to diet, and local management,

\* When this complaint commences by a slow oozing, and on examination, though the gut is found perforated, yet such being clearly a constitutional drain, we are not suddenly to think of a radical cure, at least by the knife; particularly when there is a delicacy in any part of the constitution.

† Men who have resided in the East or West Indies, and have been subject to liver complaints, are disposed to this disorder, or rather effort of nature; and in such the discharge should not be restrained, except under very particular circumstances.—I recollect having seen a gentleman of this description, who insisted on an operation being performed; but after the part was entirely healed, he became insane.

management, should be our chief objects in view; and though the discharge did not suddenly cease, yet in general it shall only continue so long as the constitution may require; provided the orifice is kept sufficiently open: and however desirous patients of this description may be to obtain an immediate radical cure, I should advise the regular treatment pointed out, previous to any further operation, which is always in our power; and be it observed, that the complaint \* in general is first from a constitutional cause, though ultimately it may terminate in a local disease.

There is one description of this disorder, where in consequence of a large abscess, the gut is so much injured that the excrement passes through the aperture with such pain, that life is scarcely tolerable. Here, and here only, we are pressed to operate; as the patient may be worn down previously to our being able to put into execution the milder means I have before pointed out.

There is something peculiar in the quality of matter or blood issuing from the anus, or neighbouring

\* Large abscesses often form over or between the glutei muscles, and run under the cellular membrane, so as to require openings to be made, and perhaps redundant lips to be removed; but such do not come within the description of fistulas in ano.



bouring parts, the suddenly restraining of which seriously affects the constitution of both sexes; but more particularly at an early or latter time of life. A strong instance of the first happened to a student in this city, who on the appearance of a fistula in ano, had the radical cure instantly performed by the late Mr. Potts; but in the succeeding spring, the glands of his neck became obstructed, suppurated slowly and repeatedly; he has ever since been subject to fevers, terminating by large suppurating eruptions; and was for a length of time completely hypochondriac; when probably had the fistulous opening been allowed to continue as natural drain, for a certain time, such bad consequences would have been avoided.

I was well acquainted with three brothers, who were studious men, and rather bilious. At the age of sixty fistulous abscesses presented in the two elder; the radical cure was performed: they both soon after became asthmatic, and did not long survive. The like complaint appeared upon the youngest at the same period; but he would not submit to any operation, and only attended to the cleansing of the part and keeping it open, which sometimes discharged; at other times was dry. At the age of eighty-four he did parochial duties, and seldom found any inconvenience from that intermitting natural drain, which was scarcely perceptible.

I was

I was once called to attend a military man \* of a weakly habit, who had the operation performed: it was followed by a considerable loss of blood; to restrain which, all means were tried: on being put to bed, and falling into a dose, as was supposed, he expired. On examination, the rectum was found full of blood,

I recollect having attended a young gentleman, who decided on being cut for what was considered a complete fistula in ano; however, he was determined first to try the effects of regimen and local management, by the assistance of his servant. Different days were fixed on for the operation, but for some private reasons, was postponed; at length he boldly presented himself to the knife; on examination, there was not any sinus † discoverable;

\* The late Duke of Chandois died of an unforeseen hæmorrhage, on the night after he had been operated on for a chronic fistula that did not give him much uneasiness; such consequences would probably not have followed the operation, had it been performed in an early stage of the complaint, when the principal blood-vessels had been destroyed by the suppuration; but after a time, the collateral branches were unnaturally enlarged, and circulation increased.

† When a sinus ran so deep in the female breast, that dividing the part by the knife would have been both hazardous from blood, and the milk vessels injured in future, I have perfected a cure by a long bougie, increasing in size so much from the point, that the external orifice became quite wide when withdrawn; I then shortened it every day, sometimes varying

coverable; a knowledge of which, I suppose, was the cause of his being so courageous. I some years back visited in a family, where the elder son had a slow discharge of humour through a sinus communicating with the gut; the second had an acrimonious swelling of the ankle, for which some advised amputation, as the discharge continued with a slight affection of the bones. This not being supposed absolutely necessary, he was placed in a clerical situation, where much calculation was required, for which he proved perfectly competent, and the limb became better; the elder son was operated on, which cured his fistula; he then gradually became flighty, and is now insane. On the whole, this complaint is frequently so critical, arising from constitutional causes, that an operation should not rashly be decided on, at any time of life, particularly as ripened matter discharging is a milder stage of self-created disease, than the obstruction and inflammation which produced it, and becomes more acrid only from restraint.

ing the size, also taking care to use pressure on the bottom of the sinus, until I could venture to withdraw the bougie entirely, which latterly was not more than one inch long. I must observe that those cases were rather cronic, and free from inflammation. This practice shall answer in most sinuses, wherever situated.



## CHAP. XXV.

CANCERS, in their primary stage of obstruction, or subsequent ulceration, require different treatment from any other tumors or ulcers. Applications and medicines, with intention to disperse or suppurate shall succeed in common swellings, and bring about a salutary termination of disease : but when a schirrous enlargement is evident, the general maturing process would only tend to excite and spread such morbid action through parts so predisposed ; and in which, if unprovoked, such seeds of disease might lie dormant for years ; whilst on the other hand, strong repellants would only further confirm the fixed disorder.

Every part of the human body may become the seat of this malady, either from natural impair \*, local injury mismanaged, critical eruptions repelled, or discharges suddenly suppressed, particularly

\* We may observe, that when either sex is very far advanced in life, the slightest injury shall bring on cancers in parts, which at an earlier period would bear the worst treatment ; and on which no corrector of the juices having the least good effect, I am led to suppose it is a disorder of the solids, as well as of the fluids.

cularly in females. The situations most disposed to be so affected in men, are the lips, tongue, glans-penis, rectum anus, nose, and all the sebaceous glands: in women, the breasts and uterus.

As hitherto no medicine has been discovered specifically acting on this vice of the juices, which soon engages the solids; parts so diseased are generally condemned to the knife, or destroyed by preparations of arsenic; which latter mode has been preferred by some experienced practitioners, as more effectually eradicating every diseased fibre, and also extinguishing concomitant acrimony. Doubtless by either means, sometimes the wretched patient has been relieved, and in a few instances cured; but more frequently the amendment was only a temporary and local extinction of the disease; to burst forth with increased virulence, or form in another situation. I have therefore at length come nearly to a determination in what cases and constitutions any measures for removal of the part affected might be safely put in execution; and where we should rest contented, endeavouring to obtund and keep down what cannot be corrected by medicine, nor subdued by topical applications of any kind.

In all scirrhus tumors, clearly produced by external injury, if the time of life and situation  
of

of the part admit of removal, the sooner it is effected the less likelihood there is of a return; regard being had to the sex, and habit of body. I have seen the most malignant ulcerated cancers on the lips of males, commence in consequence of slight excoriations \* exposed to the sun in very hot weather: also the worst schirrus obstructions arise from trifling contusions in the breasts of females neglected or mismanaged. These are only to be accounted for from a state of juices predisposed to some disease: besides, in the breast a degree of disproportion, obstruction, or malformation might have existed, previous to any injury received; which then only required the excitement or local arrest of circulation to become diseased. Therefore, in all such doubtful appearances, the common lenient discutient, or in some cases, mild suppurative † applications should first be tried; and such medicines administered as the state of constitution stood most in need of, previous to our pronouncing the fatal decree

\* From which we see the necessity for mild digestives and close coverings to every created aperture, but particularly in parts subject to become cancerous.

† If tumors in the breast can be brought to suppuration, there then is a security against future cancer; therefore the practitioner should never lose sight of this salutary termination of disease. And if the constitution is so disposed, warmth, assisted by mild suppuratives, shall sufficiently answer this end; in which, soap dissolved is an excellent addition.



decree for removal of any part, or application of escharotics \*.

This caution is most necessary in ulcers, which from cold, neglect, or mismanagement, assume cancerous appearances : where if properly treated, protected from all air, and brought to digestion, they might heal kindly ; which frequently happens after the injuries of the nose, eye-lids, lips, anus, glans-penis, or tongue ; and follows the improper use of preparations of lead, long continuance of a cooling poultice, or strong stiptics, by too suddenly drying up where there were either hard lips or loss of substance, which could only be altered by digestion and regeneration of parts. And though such cases may at first view appear desperate, yet if recent, we may hope to succeed by the application of such mild deterfive ointments, closely protected by external covering, as may be most likely to stimulate gently, and induce mouths of vessels to expand, and throw  
out

\* I have observed many deaths follow a seemingly radical cure effected by arsenic ; whether such fatal consequence arose from the sudden restraint of so noxious an humour, or from the venenose operation of the application, though not instantly appearing, I cannot take on myself to decide ; but I never knew any person long survive, whose cancer, if considerable, had been so destroyed. As this mode is practised by itinerants, I suppose they frequently place deaths to the account of recoveries ; however, where excrescences are unconnected, and not large, the arsenic plaister often should be preferred to any other escharotic.

out that which by being restrained, might further obstruct and corrode.

If then, on a sufficient trial of this local management, and cherishing the circulation with such a regimen as may enervate, no favourable change takes place; it should be maturely considered what defect or vice \* probably existed in the habit, which, when every proper attempt was made to remedy or correct, and that matters for the present, continued at best but stationary, a removal of the diseased part to prevent a more morbid state might then become necessary.

I must observe, that if there be a loss of substance with increasing ulceration in cases already cancerous, the further destruction of parts, particularly by the knife, seldom succeeds. Here I should prefer an escharotic or actual cautery. Where there is an exuberance of fungus, there is more stuff to work upon; in such cases, I would prefer excision; the other process being too tedious

\* I have observed favourable changes produced in ulcers, with cancerous appearances, from taking corrosive sublimate, which acts more immediately in correcting morbid juices, than any other preparation of mercury; but its good effects are not always permanent, and if taken in too great quantities, or for a long continuance, might prove fatal: it is safer to prescribe it in separate draughts, for fear of too much falling to the bottom of the bottle. I recollect having been called to a soldier, who died in most excruciating pain from taking the last spoonful of a six-ounce quantity.

tedious where the tumor is large \*. However, after either means, there is no security against return. But in a cancer of the lip, even when there is a loss of substance, cutting out † a certain portion answers a good end; as afterwards the sound sides may be brought into contact, so that by sudden closing of the wound external air is excluded, and immediate union takes place, without much deformity. Therefore in this part in general, I should prefer the knife: also on the glans-penis, if it should be condemned. In the rectum, anus, or uterus, though within reach, I should only advise the most lenient sedatives; amongst which, preparations of lead are useful for a time; yet if long continued, are attended by pernicious effects. But as cancers of those parts do not so frequently occur as in the breasts of females, I shall confine myself to such observations as I had an opportunity of making, in the course of my practice, on this melancholy disorder so seated.

Where

\* If the substance has a broad base and is not very large, there the escharotic bears a preference. I have observed that when you use the knife first, the arsenic may be employed afterwards, if the disease returns: but it is not so well to use the knife after any kind of caustic, on like return.

† When this operation is performed, it is proper to introduce a strip of linen or thin piece of lint wet with honey between the lip and gum, to prevent adhesions or ulceration of either the inside of the lips or gums, which might take place from the part being more contracted than in its natural state,



Where a gland in the centre of the breast gradually encreases and becomes indurated, it might be supposed that the immediate removal of such circumscribed seemingly detached part, would terminate the disease. This expectation has tempted operators dexterously to dissect out the gland so obstructed; but the almost certain consequent obstruction of other parts of the breast or arm-pit plainly proves that such gradual enlargement of the gland was a constitutional growth, deposit, or arrest of morbid humour in this part; so that there seems to be as little chance of a radical cure \* of disease from such operation, as of the eradicating of syphilis by our extirpating an encreasing inguinal tumor, in case of venereal contamination, forming what is called a bubo.

When such an obstruction therefore presents, particularly if not preceded by a recent external injury, and the patient were neither advanced in life, nor emaciated; I should instantly commence a course of mercurial frictions, not solely on the part, as the action of much rubbing might further confirm the obstruction, but merely to impregnate the system: therefore should proceed every night for three rubbings, and so every second or third night, till the gums became affected, or that there were other absolute proofs of the habit being

\* If the obstructed gland is quite near to the surface, I would advise the immediate removal, and the skin to be closed, which soon heals.

being completely charged; which we might expect in the course of fourteen days \*. I then should desist; and though no immediate advantage appeared to arise, yet it is possible that the formation and encrease of this complaint might be so far broken up, that new juices in supplying the waste so occasioned, would produce some favourable change; and thus arrest the disease in its very commencement.

If however, in a few weeks the gland did not appear to diminish from this treatment, I should advise such topical applications in addition, as should appear best suited to discuss or at least deaden that low degree of inflammation which generally subsists in such parts; and by the spreading of which, the contiguous glands are so liable to partake of the same diseased state.

The remedy best adapted for this purpose (of those which I am acquainted with) is the extract of Saturn, which should be applied externally, in the form of a poultice, as follows;—A Drachm of the extract may be incorporated with a poultice

\* As this course is but an experiment, it should not be continued long; and only commenced in the infant stage of the disease: never being considered useful in a confirmed cancer. The modern practice is to apply leeches, and repeatedly to blister the part, which for a time may appear to act on the complaint; however, if they did not evidently diminish the fullness, their repeated irritation would be injurious.

tice made of oatmeal \*, and strong camomile-tea, well boiled, in which a little Castile soap has been previously dissolved. This should be applied to the part rather cool. In such cases, I also advise the extract of hemlock, to be taken internally, in the form of pill: both these measures under an idea, that there exists a diseased growing disposition to form this rising complaint; which locally is in some degree extinguished by the lead, and internally obtunded by the continued use of so powerful a narcotic as the hemlock. How far the constitution may become injured by a perseverance in the use of these noxious drugs, I shall not determine; but, comparing the wretched state of an open cancer, with any disadvantage resulting from the continuance of such a course, I should abide by the latter.

The second species of cancer is where the nipple shrinks, and by degrees the entire breast withers and hardens †, so as to remain indolent.

I have

\* As more or less of every humid application which lies on the sound surface, or an ulcer, is reformed, I am encouraged to give this cataplasm a preference to many others, from my observation of particular salutary effects on the juices having arisen from oatmeal beyond other vegetable substances. Carrots also make an excellent poultice, and being one of the sweetest vegetables, perhaps in addition to local ease, some advantage may arise from absorption.

† I have applied tepid salt-water to breasts in this state; and think it has been serviceable. I suppose that in one instance I stopped the progress of the disorder by using the water as hot as the patient could well bear.



I have known numberless patients with breasts so affected, who enjoyed tolerable health for a length of time. Others, determined to have such removed, an asthma soon succeeded; and death in the course of one year closed the scene, though the operator for a short time boasted of a complete removal of the disease.

The third degree of cancer is where the entire breast becomes one mass of obstruction. I should then be induced to remove so weighty a diseased incumbrance. And I believe it has been in such cases that the operation has mostly succeeded. How far hereditary acrimony, and early glandular debility were causes of such obstruction and therefore the breast only in part schirrus, cannot always certainly be decided: but, I have reason to fear that an actual cancer in the breast forming unprovoked, is seldom radically cured; and it is only when the diseased part from its magnitude becomes such a morbid incumbrance, that we should be tempted to take away what could never be restored to either sanity, size, or form. Yet, even in this state if ulcerated, the removal should scarcely be attempted. In all those cases the more sanguinary or livid the appearance of any part of the tumor, the ranker the disease; and the more likely to revive.

We must also consider the state of the womb, the preceding discharges or obstructions of which  
should

should more or less discourage us from such a precarious undertaking.

On the whole, keep quiet as possible such stage of disease, which if forwarded so as to produce further ulceration, generally terminate fatally.

Where the open cancer in any situation becomes foul, we might suppose that deterfivè ointments and heat would bring such ulcer to a cleaner state; the fact is otherwise; for the more that we attempt to draw off this humor, the more it encreases, so as to exhaust the entire strength and substance. Therefore, the best we can do is to refresh the part and abate pain. This end is in some degree answered, by bathing in lukewarm water, to which a small quantity of extract of Saturn may be added: or, by an infusion of hemlock, used rather cool: lint-seed tea also gives ease.

There is another species of cancer, on which, from its extreme rigidity, neither medicine nor topical applications could be expected to act: I mean, where the diseased substance becomes cartilaginous. This may happen in any part; but more generally in the mouth: often in consequence of an injury to the jaw by a blow, the extraction of a tooth, or some disease forming in the antrum. And though such cases are unpromising,

mising, yet as the tumor occupies so much space necessary to be kept free, we are forced to remove it. A better chance is given by taking away a certain portion of the bone, with the cutting forceps, and sometimes applying the actual cautery: afterwards honey and water, to which spirit may be added, seems to be the best lotion we can use, for this or any ulcer so situated; always taking care to introduce a thin piece of lint or linen, so moistened, between the cheek and diseased part: for all ulceration shall encrease by contact with even sound flesh: for want of such management, I have known slight excoriations in the mouth become troublesome ulcers. The like also happens in injuries of the fingers and toes, which seldom heal without such precaution, and might adhere, if not separated. When a tumor forms in any part, the salutary termination is by suppuration or re-solution: therefore we should not employ too active measures to obtain either end, until we can decide how far the habit was predisposed, and would be injured or benefitted by either event. Then our measures, both internal and topical, may be more confidently and energetically employed: and be it observed, that in every obstruction two sad extremes should be guarded against; namely, mortification and schirrus, terminating in cancer. To obviate the first, our applications and medicines should not be of a cold nature; as by proper warmth we promote suppuration, so obtain a salutary termination of disease: and if there



there be reason to fear the latter, let all topical treatment be lenient; yet not so cooling as to enfeeble or chill the circulation; which bad effects, preparation of lead too long continued, or strong acids might produce.

In consequence of an incautious employment of the first, I have known vital powers so depressed, as almost to become extinct; and by the latter, the finer juices repelled, and the thicker remain, to lay the foundation of a future schirrus \*. Whenever such happens to be the case, without loss of time, resort to an opposite course: mollify and animate locally; likewise cherish internally; ever concluding, that in most constitutions, except in cases of high inflammations, moderate warmth and animation are attended with more salutary consequences than the opposite extreme; particularly in female habits.

The worst cancers which I have seen, arose from suddenly suppressing or counteracting the regular course of complaints seemingly local or stationary; which if cautiously managed, might in due time have changed into appearances or forms

\* I have known such consequences to attend an hernia humoralis, either by the repeated application of vegeto water, or vinegar in a cataplasm; yet a slight mixture of either might, for a certain time, not have been injurious. Such caution is absolutely necessary in accidents of the joints, which frequently become inflexible, though the best means may afterwards be employed.

forms more tolerable, and scarcely to be considered as disorders.

I recollect visiting a lady, who had a tetter on her thigh \*, which scarcely could be considered more than a trifling local disorder: she privately washed the part with a strong solution of vitriol, which suddenly dried it; and on disappearance, the entire right breast became so obstructed as to terminate in an ulcerated cancer, of which she died. I was also called to see a Romish priest, who had a hard moveable encisted tumor on the wrist, which did not give him any uneasiness; however, he was so unfortunate as to allow of a seton to be passed through it, with intention to melt it down by suppuration. The part soon became cancerous, and spread so rapidly as to require amputation of the arm. The stump assumed the like appearance; and he died a miserable victim to that incurable disorder.

I lately visited an emigrant barber, who from neglected colds and poor living, was seized with a large indolent glandular swelling, in the neck; which did not yield to the general measures employed in such cases. Afterward two deep issues were

\* I have observed when a cancer arises, in consequence of humour of any kind repelled from another part, the newly-created disorder spreads more rapidly, than when naturally commencing. Trees flourish more after inoculation, than by a regular growth from the mother root.

were made in the part, in hopes of producing salutary suppuration; which not coming on, the whole became schirrus, and terminated in an ulcerated cancer.

From such instances of ill-timed active means producing such fatal changes in stationary complaints, I recommend to the young practitioner, particularly in female cases, to be cautious how he checks or repels humour of any nature, without first altering the juices (if to be effected); so as to guard against revival of the same malady, or new formation of a more formidable disease \*: and, where in either sex we discover obstructions or substances of different kinds, appearing even but local, and scarcely connected with the habit; if on mature consideration any mode of removal seems expedient, destroy or remove such entirely by escharotic or knife; otherwise let them remain, subject to the influence of mild measures.

On the whole, I fear that a misconception of this disorder has given unmerited reputation to nostrums or specifics, for the cure of complaints supposed to be cancerous, which were not actually such. A confirmed cancer seldom or never  
appears

\* I recollect being called to a young gentleman, who had a venereal tumor in the groin, which was opened. Whilst in a state of induration, the part became completely cancerous, and he died in a few months, notwithstanding every means were afterwards used to bring on suppuration.



appears in females until after thirty, and in males not before a later period, except in consequence of mismanaged injuries, irritation too long kept up, as by a tooth galling the cheek, tongue, or gum, ill-treated ulcers, or tumors arising from vice in the habit, opened and irritated before maturity; in all such cases our discovering the original error might enable us to counteract such tendency. It is also to be observed, that ulcerated cancers, or fungusses of that nature, does not appear in two parts of the body or face, except after removing or suppressing the first; and until there is absolute induration we never should declare any ulcer or excrescence decidedly cancerous. This distinction is extremely proper, as we often see foul fungusses rising, particularly on the nose, which at first view appear cancerous, but on examination are only luxuriant local productions which may be safely removed by such escharotics as shall eradicate the entire substance, for which I have experienced oil of vitriol to answer better than any other caustic.

## CHAP. XXVI.

ESTABLISHED hereditary disorders are perhaps not more numerous than the original colours, from which I am led to suppose that most of our chronic convulsive affections may be considered as different degrees of morbid shades, arising from or connected with primary sources of what are commonly called family diseases. In this description, I include Epilepsy, presenting sooner or later in proportion to existing causes, either regularly formed, or by accidental shock and surprise, prematurely forced into action; when brought forward by the latter \*, the remedy is less within the power of art than when produced in the regular course: such complaints in all degrees are more general among females than males; however, they seldom appear in either sex,

\* When this disorder comes on in its usual regular course, we have reason to hope that time and regimen may enable the habit to rise over a complaint which originates partly from debility; but where accidents of any kind force it into action, we may consider such shock as breaking a link in the chain of our nervous system, scarcely in the power of nature or art to unite.

fex, where hereditary acrimony, gout, scurvy\*, other constitutional malady or defect, could not be traced back to some of the ancestry; for where the seeds of particular disorders exist in the habits of parents, and do not come forward in the regular specific forms among the descendants, such contamination rests internally, and affects the nervous system by intermitting regular convulsive exertions, commonly called epileptic fits; and the more weakly and irritable the person be who is so affected, the more established and hopeless the case is. This complaint may also commence in consequence of disproportioned formation of the brain, lungs, or liver; and though for a certain time such imperfect parts might yield and perform the necessary purposes for which they were instituted; yet their unequal encrease, when advancing to maturity, and irregular impair, either from time or mismanagement, might sooner or later bring the seeds or causes of what so long had lain dormant into diseased action; on these latter cases, the moon has a stronger influence than in the earlier commencement of the disorder. I have remarked, that when epileptic fits have long preceded

\* I lately visited a young lady who laboured under epileptic fits, from a scorbutic eruption forcibly repelled, which was not more than the size of a half-crown, and continued on her head with very little inconvenience or discharge, from one to seventeen years old, at which time she used strong extract of lead. Her friends now give up all hopes of recovery, particularly as there does not seem to be a likelihood of any eruption in other parts.



preceded paralytic affections, such cases terminated more fatally than when the stroke came on without a previous fit. In the treatment of most disorders, one settled intention should be pursued, either by support or reduction; and here the first only is salutary, from which we should not suddenly vary, nor yet to expect such an immediate amendment as shall arise from the employment of particular medicines for the removal of acquired recent diseases; multitudes of remedies are mentioned as specifics for the cure of this complaint, particularly herbs, with directions that they shall be collected before sun-rise by the patient in person, which occasions early rising, and such refreshment from morning air, as is highly beneficial in all nervous disorders, and perhaps the plants pointed out may possess some salutary strengthening virtues; therefore such advice should not be entirely rejected: mineral waters in small quantities have been useful, more from their being drank cold, than from any medicinal efficacy; they operate as cold baths on the stomach and nervous system, which give a chance of throwing out something salutary and critical.

Some practitioners strongly recommend a repetition of small blisters, from which I never recollect any advantage: others order issues\*; they

\* Where it is difficult to force an issue to discharge, or that what comes from the part, is viscid and ropy, the continuing it is useless in the first case, and in the second instance such drain becomes weakening.

they gradually waste the juices indiscriminately, and only enfeeble; yet in some cases of partial morbid plenitude, or where an eruption had presented and vanished, or had been incautiously checked, those drains may be of use; also, where such disorder is known to exist in a family, the making an issue in a child, before any fit commenced, might possibly arrest and draw off the floating seeds of unformed disease by the part so irritated; on which account, when that operation is performed, I advise the first dressing, or pea, not to be removed for four days, which often produces a temporary fever and Erysipelas about the wound, consequently more discharge. Notwithstanding, if the fits come on, I should be inclined not to continue the issue long, except some other constitutional causes decided such a drain to be absolutely necessary, and the disposition to discharge acrid matter evinced the use of continuing such drain; many conceiving that worms were primary causes for periodical convulsive paroxysms, have employed every species of anthelmenthick medicines, but with little success, that worms often exist in epileptic subjects is not to be doubted, and may be excitements to this as well as other diseases, and sometimes are primary sources of many complaints in children of very weakly frames; but they more frequently form in morbid emaciated habits, than existing as original preceding causes of emaciation and disease; however, in all obscure  
 infantile

infantile disorders, the existence of worms should be in consideration, particularly if the food had been improper and stools white\*; but to produce a confirmed convulsive epilepsy, the brain or principal parts of the nervous system must be more or less, sooner or later morbidly acted on; therefore the employment of all worm medicines should be within certain limits, and nothing given to enfeeble. Flowers of zinc, mercury, asafoetida, castor, and amber, with various nervous medicines, have all had their share of reputation, but after repeated trials have failed, men of genius then were forced to resort to different experiments, most of which were found only to interrupt or suspend the regular returns of attacks: electricity, so far as a few trials, promises success; but I have known the brain and nervous system so enfeebled by repeated shocks, as to become more permanently diseased; strong emetics† break the regular intervals of attacks, but after some days they return with more force.

A modern

\* When the liver does not secrete sufficient of bile for the purposes of nature, the bowels deprived of such a bitter menstruum allow worms to generate; to remedy this deficiency, I have found conserve of rue, to which a little calomel is added, a most excellent medicine.

† We observe that fits generally commence by slight and repeated attacks, till at length one severe long convulsion takes place; the patient then falls asleep, and awakes recovered for the time.



A modern experiment, which I cannot help comparing to a stage trick among actors, is by sudden shock and surprise to intersect and cut short the fit in its commencement; similar means would stop sneezing, interrupt discharges of urine, or other critical and natural efforts of the habit, and from such sudden opposition to this regular diseased necessary nervous action and convulsion, I have known a spitting of blood to come on, and a decline follow, or the disorder more radically confirmed, for the reason stated in the first note. The cases were female; therefore this, above all other empirical practice, is the least scientific and most unwarrantable.

The small-pox, or any eruptive fever, which first agitates the system, afterwards terminates by a certain salutary crisis, during its continuance interrupts the regularity of attacks; but when the morbid feverish action abates, and health returns, the fits come on as before.

I recollect some years back having attended a family, where the eldest son had glandular swellings, which terminated by repeated suppurations, so as to leave him free from disease: the second son, at the age of seven, shewed most uncommon talents, particularly for music\*, gradually

\* I have observed, that in proportion as the brain verges to an aqueous or less sanguinary state, previous to any fit, the

dually became dull, without any apparent cause, at last epileptic, for which various remedies were tried; all without effect: it then occurred to me that as his brother had no kind of nervous affection, and as this youth never had the small-pox, it would be proper to inoculate him without previous preparation, thereby hoping to procure more variolous matter; his sickening was succeeded by repeated convulsions, and a copious confluent eruption pushed out, under which, while maturing, he lay torpid for eighteen days, during that time he had no fit. I must observe, that previous to confinement, he had one fit \* regularly every day about noon; I therefore from such a long interval of freedom from attacks conceived him well, but when the eruption was completely dry, he was then seized with repeated convulsions, and had three or more fits every day, until the arrears were entirely cleared off; he then returned

the intellects become clearer; I do not mean that perception is quicker, but the arrangement of ideas is certainly more complete, until such time as water absolutely collects; when such uncommon powers appear, if the child is not perfectly strong, it should not be indulged to any great degree, in its most favourite pursuits, particularly where exercise is prevented; health being the primary consideration.

\* I recollect an instance of a fractured limb, where the callus was tedious in forming; the patient was seized with violent pain in the part, immediately after twelve o'clock at night, which continued for three hours regularly every night until the bones were completely united.

turned to the original regularity of one fit every day, except some causes of excitement were afforded to encrease the number, and he now is in a state of absolute fatuity.

From this and many other nearly similar cases, I am inclined to treat epilepsy as a disease arising from debility and atony, which if time, with natural strengthening measures, do not remedy, the exertions of art shall only confuse and injure; however, a certain share of medical attention is always useful to such as can afford it.

On opening the heads of those who died of what may be called an epileptic decline, whose termination of life, though long foreseen, yet generally happened suddenly. I always found morbid relaxation of the entire brain, frequently water in cysts near to the surface, gravelly formations in the more glandular parts, and once a large soft stone in the right ventricle. In most of those cases, the deaths were long preceded by a confirmed paralytic affection of one or more limbs, impaired sight, and faltering voice. Whether such an arrest of disease in the brain, early commenced, or might latterly have taken place, at least been aggravated by the regular course of paroxysms so much opposed and counteracted, I could not determine: for in all those subjects, variety of remedies and measures had been tried; I therefore am decidedly of opinion, that he who

principally



principally advises cold drinks, wine, or other invigorating liquor in moderation at dinner, and the entire body, particularly the limbs, to be preserved comfortably warm, the head shaved, then daily to be sponged with cold water, but not by shock or surprise; the shower-bath answers best, if to be procured; if not, cautious cold bathing, whilst the weather is warm; I say, such prescriber gives his patients a better chance of rising over the radical cause of this disorder than they would have by any of the extolled remedies publicly advertised or individually fancied by men of first rate genius, whose experiments in support of systematic ideas, only serve to raise vain hopes, and ultimately to render the cases of their wretched patients more remediless: for as original causes from which epilepsy arises, can be by no other means remedied than by assisting the weaker parts of the frame to strengthen and become less morbid; the practitioner should only endeavour to pilot his vessel according to the most authentic charts, and not rashly attempt steering her through unknown and hazardous tracks, in which if pressed to navigate, she might never make her port. Such caution is particularly necessary in female habits, where the sex, from formation, is most subject to this complaint, and in whom for various reasons, experiments are unsafe; in males they are found to be equally ineffectual, and therefore in neither case can they with prudence be ventured on, or do they afford rational expectations of success.

Where

Where males, though epileptic, yet obtain a certain share of constitution and strength so as to promise ability to act in life, their parents should be cautious not to put them into such situations as to be solely employed in retirement, on board a ship, or in any way that they must mount high, and never in such pursuits as shall over-fatigue the body or mind, which ought notwithstanding to be moderately engaged and amused; and females should be forced to exercise in the open air, so far as their strength is equal to, and matrimony should scarcely be in contemplation for either sex, yet some recommend that state as an experiment. I have sometimes seen epileptic young women, who before child-bearing were tolerably well with the exception of a few slight fits, only excited by accidents; but on delivery of a first child, from the sudden waste of strength, they became convulsed, and did not recover; however, I should be sorry to draw a line of restriction to that state which is the principal object in contemplation with the young and innocent of either sex; and cases, I hope, might rarely occur where the effects would be so fatal as what I have mentioned\*.

\* Tea, coffee, or spirituous liquors, however qualified, are injurious; and snuff taking never should be resorted to.

## CHAP. XXVII.

FEVERS in some habits, at certain times in life, may be considered as constitutional efforts for the re-establishment of defective secretions, and renovation of health, and sometimes they arise from accidental causes; but in either cases, being frequently mortal, I conceive it necessary, previous to our discussion of such medicines and measures as are generally recommended, to discriminate between the constitutions predisposed to such attacks, and those in which fevers are merely the effects of recent and obvious causes, and in which of course different modes of treatment are to be adopted.

A majority of the inhabitants in most countries, except in great towns, eat little animal food, are thin in flesh, and neither lodged nor cloathed sufficiently comfortable for the recovery of health impaired by hard labour, affected by cold or bodily fatigue; therefore when fevers arise among men of this description, in consequence of any of those causes, attended by pain in the side or chest, respiration soon becomes difficult, we then  
find



find it necessary to let blood \*, especially if the patient be muscular, with large blood-vessels, the pulse hard, and that he has generally perspired freely in his daily labours; this diminution of circulating fluids prevents any dangerous overcharge in the lungs, till perspiration and expectoration can come on; without one or both of which, such species of fever seldom subsides; if the patient does not become faint, the blood flows freely, and that it appears buffed, a second quantity should be taken away. The bowels should, after the first bleeding, be sufficiently cleared; if much purged, the tendency either to perspiration or expectoration, shall thereby be counteracted; besides, people of this description, in general, do not eat so grossly as to require large evacuations by the bowels; and should they exceed, their exercise carries off the excess, ptisans, or two-milk whey, are the properest drinks; in the latter, a little nitre may be dissolved; they should be taken warm, and the apartment not rendered too cool; if pain is intense in either side, a double flannel over which three or four folds of soft paper is placed, shall bring on local perspiration, and often gives relief; but not producing

\* Blood-letting has better effects in the country than in cities, as in confined air diseases are more or less inclined to putrescence, though they may have an inflammatory commencement; notwithstanding, if the breathing should be oppressed, we are not to withhold this measure in any situations.

ducing this effect, a blister should be applied on the part, afterwards dressed with such ointment as encourages most discharge; if expectoration comes on, and it sanguinary, a repetition of blistering might further dangerously attenuate the blood; if pain or puffy swellings presents on any limb or joint, the rubbing, applying blisters or spirit of any kind on such parts, would be most injurious, as thereby the inflammatory affection or febrile fomes, which from its local abode might in due time tend to abate general distress, being thus broken up and dispersed by the blister, or repelled by topical application, might dangerously affect either the brain or lungs. I have sometimes observed the consequences attending this practice \* so fatal, that I hope it may never be put into execution; whenever such swellings present, the parts should be kept additionally warm, and wine administered, except the state of fever ran so high as to render it unsafe, opium in some form early taken is useful, by relaxing tension and abating spasm, from which effect it disposes to perspiration; but should the chest continue oppressed, and expectoration difficult, from debility, dryness, or viscidty of phlegm, it should

be

\* I recollect having seen a young lady of a delicate frame, who on the third day from the commencement of her fever, was seized with pain and swelling in both knees; she was blistered on the parts, but soon after became delirious, and died. Blisters should seldom be applied on joints, particularly if the parts are in a painful state.

be discontinued, or given in a very small quantity; antimonials, among which I prefer James's powder, early administered, often suddenly abates fever, by causing profuse perspiration; but if it purges much, ought not to be continued, and even by producing perspiration too copiously, which in a moderate degree \* might prove beneficial, would afterwards so reduce the natural powers, and change the state of blood, that the fever which in its commencement was simply inflammatory, might become putrid; therefore all those energetic medicines should be given, only to forward or substitute such defective secretions as the nature and cause of the original disorder absolutely required; in the progress of this species of fever, clysters shall more safely produce motions than purgatives by the mouth; however, should the belly become full and flatulent, purges at stated intervals must be administered, which act better when warmed by spirituous or vinous tincture of rhubarb, fenna, or jalap; and where such additions are considered inflammatory, fennel, aniseed, or other waters of a warm quality added, may

\* In this disorder I have prescribed a julep composed of five ounces of common mint-water, half an ounce of cinnamon-water, two scruples of nitre, ten drops of spirit of hartshorn, and two drachms of syrup of diacodium, taken by two spoonfuls every second or third hour, which thins the blood and disposes to perspiration; and though this medicine is simple, yet I have found salutary effects from its use.



may be less exceptionable ; mild oleagenous pectorals \*, taken in small quantities, lubricate the glands and opening of the larynx ; but given too copiously, they load and nauseate.

Eruptions on the surface often present, the disease ceases then to be entirely in the inflammatory stage ; therefore wine whey, or wine and water, may be taken ; when such eruptions begin to disappear, purgatives become more necessary ; but during the entire course of this species of fever, neither the bark nor any other tonic medicine is indicated ; this disorder was formerly more common in this climate than of later years, particularly early in spring ; however the laborious, athletic, or incautious of all descriptions are subject to such attacks in every country at any season, particularly when the lungs are delicate ; and if inflammation be not abated in the commencement, they frequently terminate fatally ; and though blood-letting for the present generation, especially where hereditary acrimony is suspected to exist, might not be so proper, yet in every constitution so attacked, this measure should be in view, particularly in youth, and even in advanced life, when perspiration becomes languid  
and

\* Equal parts of treacle, vinegar, and syrup of diacodium mixed, and taken by small spoonfuls, make an excellent pectoral ; the vinegar, I suppose, counteracts any bad effects which might arise from the syrup, as too much of an opiate.

and defective, in consequence of which the blood grows viscid, cough troublesome, and respiration difficult; therefore a small quantity taken away lightens the office of the lungs, and facilitates expectoration; this discharge aided by perspiration, being the chief resource by which the habit can free itself from many inflammatory attacks, particularly of internal parts.

## CHAP. XXVIII.

FEVERS sometimes arise among the lower orders \*, from damaged food and defect of necessary warmth in wet seasons, particularly in low damp situations, and soon become endemic; they are sometimes attended with purgings, also frequently by remitting perspirations; and as a freer evacuation by the bowels should early be produced, a small quantity of tartar emetic in water-gruel answers this end; also acid drinks, to which wine is added or cider and water, they oppose further putrescence; reduction by active measures is not here so safe, as a certain time must pass over, and strength should be supported, to enable the juices to become wholesomely renewed; all such disorders are more or less fatal, according to the constitutions and causes from which they arise, if the purging †, which in general

\* Most endemic fevers appear first among the lower orders, though afterwards they should become general.

† Acids moderately warmed by stomach tincture or plain spirit, assist in correcting that tendency to putrescence and relaxation which exist in the entire intestinal canal; or weak broth well salted and taken cool: but neither should be offered, except that the instinctive appetite relishes.



ral is a principal crisis, should continue too long, small doses of ipecacuanha may be taken, and flannel next to the skin contributes to diminish it; but if, notwithstanding such treatment, insensible perspiration should decrease in consequence of the purging not abating, a small quantity of James's powder, to which opium is added, may be useful. I have often seen the inhabitants of entire villages attacked by those fevers, and recover by such treatment; and where more active measures have been employed, the success was not so certain. Towards the period of convalescence, the instinctive appetite generally points out what food is most salutary; I have always found flummery grateful, and being duretic, answers a good end; coarse bread and buttermilk are proper, also oatmeal in water well boiled, commonly called stirabout\*; and though strength should not suddenly be restored, yet the administration of bark, or any powerful tonic where discharges of gross peccant humours had lately subsisted, in consequence of defective or suppressed secretions, might by sudden restriction occasion formation of further disease; in some part, the use of this tonic after any fever, but more particularly of an inflammatory or putrid nature, requires mature consideration, as fevers of

\* This keeps the body regularly open, at the same time acts as a salutary diuretic: taking it with butter-milk is often found preferable; it then acts as a most cooling diet.

of the first description terminate by abatement of tension and relaxation of solids, previous to their salutary crisis; therefore so sudden bracing the system might again produce confinement and restraint in such increased secretions and evacuations as removed the original disease, and in the latter case, some remains of surfeit and disease might not yet be cleared away.

When brute animals become feverish, from natural or accidental causes, particularly the horse, whose constitution nearly resembles that of man in his original healthful state, so soon as inflammation has subsided, soft grass and succulent food are principally proper to refresh and cool any ardour, which might yet exist; but in the human race, when the late crisis has been supposed complete, and where debility and paucity only keep up fever, and where there is no pulmonic affection, appearance of present, or suspicion of future biliary obstruction, a moderate use of tonics safely checks and abates the increased action and motion of the heart, nervous and arterial system, by contracting parts, which if remaining too long in a state of relaxation, might endanger the entire constitution becoming reduced and melted down; however, as omissions in our duty are more venial than the committing of errors, I should recommend due caution as to the administration of bark, particularly to females, who were in any  
degree

degree predisposed to obstructions, and to males who were used to full living previous to indisposition; and the younger and fuller the subjects are, such cautions \* are the more necessary.

\* When doubts have arisen about the propriety of administering bark, I have known great benefit received from ice, also Seltzer water, with the addition of a small quantity of milk, any of which tend to brace and strengthen naturally, consequently their effects are safe, pleasant, and permanent: frequently taking the air, and having the body well protected, may also be of use in the most rigorous seasons.



## CHAP. XXIX.

THE fever generally stiled *putrid*, and in some countries called the yellow fever, has ever proved more fatal than any of the acute diseases which we encounter ; it is supposed in America, lately, to have arisen from air contaminated by the corruption of vegetable substances : also from stagnated waters in marshy grounds, and though endemic, yet is observed most generally to infect such descriptions of people, who from morbid appearances and languid constitutions, might be considered as predisposed to disease, however excited. I recollect some years back, a jail fever having commenced in this city, which was fatal to a number of lawyers and attornies ; but every person who fell a victim to it, was of such habit and countenance \* as any medical practitioner would have prognosticated, at some time in life likely to encounter a dangerous change in constitution, on cause given ; we therefore may suppose the seeds or foundation giving rise to such corruption

\* The complexion, mode of life, and general habit should be considered in the treatment of a fever, from which only we can judge how far the patient is to be reduced or supported, and whether the cause was chronic or recent ; therefore family physicians should always be preferred.

corruption of juices and nervous affection, which attend this fever, more likely to exist and produce it partially, than generally; but when once formed, spreads like other infectious diseases, yet differing in degrees of danger, according to the habits in which it arises, and can only be counteracted by opposing such tendency to further putrescence, as created the primary diathesis or efficient cause of fever, at the same time that we early employ active measures to remove plenitude or obstruction. Yet we should support the system, but not by any medicines which could restrain natural secretions going on, or that might be expected to offer in the commencement of this disease, the pulse is generally soft, and not always quick, the skin hot and \* clammy, urine mostly pale, yet sometimes suddenly breaks, but does not deposit so complete a sediment as to become clear in the upper part of the glass, such early breaking is premature, and the water † resumes a crude state, therefore cannot be considered

\* If the sweating remits, and the skin feels cool, it is rather a favourable circumstance, in the early stages of most fevers, as to produce putrescence, heat generally continues unremittingly. This observation should not lead us to mistake for good symptoms, cold sweats attended by ravings, which forebode dissolution. Where the sweats are plentiful and the thirst great, such are better symptoms than when perspiration is inconsiderable and little or no desire for drink.

† If small in quantity and thick when made, it may be considered as a bad symptom, and calls for the use of such diuretics as are safe to administer without irritation.

sidered as a critical favourable appearance, and always forebodes a tedious and uncertain fever; pain is felt in the forehead and temples, when confined to the back part of the head not so bad, lassitude and want of rest are complained of; at length spasm and delirium set in, the increase of which soon terminate in convulsions and death. The dangerous periods are the fifth, seventh, ninth, eleventh, and so on to the twenty-first day. The experienced practitioner feels degrees of hope as those critical days pass over; for in proportion to the weight of disease and inability in the habit to resist and discharge it, the fatal termination is earlier, livid spots \* frequently present on the skin, and a small quantity of blood drops from the nose †, both which appearances only shew an attenuated state of the juices, and do not abate the fever, but if an eruption arises on the surface, or  
 copious

\* I have observed that large spots are not so bad appearances as when they are small, consequently greater in number, but in either cases wine should be given; where recovery had taken place, the crisis has frequently been by blood downwards.

† I recollect having visited a gentleman in a putrid fever who every day bled a small quantity from his nose; this appearance not remitting, his friends got him bled largely; in the night the bandage became loose, by which he lost at least thirty ounces of blood; the fever then seemed to abate; however, the usual symptoms presented, and he died on the ninth day; the blood-letting though profuse, did not alter the progress of the fever. Had so much blood been discharged naturally from any part, it might have been critically favourable, and only requiring support of the habit.



copious bleeding comes from any part, particularly the nose, some benefit may be expected.

After observing that such treatment as proved successful where fevers had arisen merely from cold, plenitude, or other recent cause, in a subject previously healthy, was in those cases only enfeebling, ineffectual, and injurious; I was induced to adopt the following course, which more than once I have observed rather successful:— After first clearing the bowels by calomel combined with a small quantity of aloes, or in some instances cautiously \* by tartar emetic, and bathing the hands and feet for a short time in warm water,  
I admi-

\* Many practitioners are fond of adding emetic tartar to saline juleps, which they suppose necessary to continue, from observing, that what the patient pukes is green, and the discharges by stool yellow; they therefore conclude such discolouring proceeds from bile; from that misconception I have observed much mischief to follow. I recollect having assisted in attendance on a young lady in a fever, who took this medicine, and after ten days unremitting purging, which appeared yellow the whole time, consequently was judged not safe to check; she gradually lost speech, hearing, sight, &c. the tartar then being discontinued, the purging ceased so far as that she had not one motion for eight days, during which time her powers of speech, &c. gradually returned, strength increased, and fever rose, assisted by wine, so as to throw out an eruption which filled; and she soon became well; is now married, and has children. From this case we may observe, that though an open state of bowels may be necessary in most fevers, yet over-purging, particularly in female constitutions, is often injurious.

I administered a vomit\*, conceiving that the pain in the head arose more from nervous or membranous affection and lentor in minute circulation, than absolute vascular sanguinary plenitude or obstruction; this sensation is also aggravated by the stagnation and inspissation of gastric juices, perhaps mixed with bile, which was perverted from its natural course, and as the subtile circulation in the brain and its membranes, in such cases becomes languid, and in part stagnated the increased motion of the heart, consequently more general and equal distribution of blood and juices from the exertion of vomiting, gives such energy to the entire vascular and nervous system, as to liberate the parts affected, and often produces a discharge by the bowels, which is seldom too copious or enfeebling, when brought on by any vomit. At all events, sudden ease is generally perceived in the head, besides abdominal muscular action, occasioned by vomiting, forces the gall-bladder to discharge its contents, and so enables the liver further to secrete and unload itself of bile, in which office it had been previously supine, and from such defect is sometimes supposed

\* In the commencement of any fever, a full brisk pulse is a better circumstance than where the circulation is slow and languid; therefore in such cases the action of vomiting cannot be very injurious, and an addition of antimonial wine answers more effectually than plain hippo, except the patient should have a very weak stomach.



posed in part to give rise to this fever \*, particularly in hot countries ; however, if the patient is of such form, plenitude, or habit of body, as that the action of vomiting might be hazardous, this measure should not be proposed ; but those who are most disposed to this species of fever are generally not full in flesh : if no effects follow to deter us, the vomit may be repeated as the strength shall admit, and the advantages appear to arise.

I have so often observed immediate sleep succeed to the action and fatigue from vomiting, and in some cases a salutary burst of blood from the nose, that I am partial to this remedy.

I must again observe, that in addition to the objections I have already made to any vomit, no fullness of temporal vessels, inflammation of the eyes, or other signs of vascular plenitude should appear, any of which must deter us from the employment of this measure †.

I was

\* On being obliged to open the body of a man who died of a bilious fever, I found the gall-bladder distended, and full of bile.

† When we see people of all habits vomit at sea for many days, without any bad consequences, likewise in a state of ebriety, we need not much dread immediate dangerous effects from a vomit ; and as we observe puking to be a general effort of nature in eruptive diseases, particularly the small pox, we are the more encouraged to give a vomit where any eruption might be beneficial.



I was first induced to make such experiment, or rather to revive an ancient practice, from observing that after blood-letting, when the patient became sick and fainting, if vomiting commenced, the blood sprang out most rapidly, and so continued until the arm was bound up. This general exertion, which quickens circulation, is more effectual, and less exceptionable, than the like effect produced solely by cordials, or volatile spirits of any kind; a moderate use of which may be proper. If the patient be a female, such exceptions should be made to a vomit, as the circumstances of her constitution required; however, I have observed, that this sex is not so subject to those fevers as males; nor, when attacked, is the danger so great. The forehead and temples should be sponged with cold water, to which a small quantity of vinegar is added; and if the head has been shaved, the like application may be employed on the crown, but not for such continuance, or so repeatedly, as to prevent renewal of warmth and re-action in circulation, which the suffering ice to remain on for a length of time might occasion; the chest may be bathed with spirits or cold water; if by the latter, suddenly wiped dry; but neither should be used on any of the extremities, which parts ought in every fever to be well protected; all drinks should be taken cold, except the patient absolutely objects, and requires them warm, and the less nutritious they are, the better; cider and water deserves a preference,

rence, where hock cannot be procured, and barley-water acidulated, to which a small quantity of wine is added, is less exceptionable than two-milk whey for a continuance; yet we still must vary as the instinctive appetite points out. Great recoveries having been supposed to arise from large quantities of wine \* being drank in the course of fevers, many practitioners prescribe it early and freely; but except secretions or evacuations are in proportion to such overcharge, the circulation may thereby be loaded and propelled. Every person who in full health has been obliged on particular occasions to exceed in the use of wine or strong liquors, must recollect his sensations from plenitude and heat so occasioned, until perspiration or some increased secretion came on.

I have remarked, where vinous drinks have been too early taken in fevers, and persisted in, the fatal termination was much sooner than in common course; and I have known others recover, who, during the progress of the disorder, had

\* There cannot be an absolute decided period for the commencement or continuance of wine; and though in general it is not proper until the first stage is over, yet sometimes the fever commences by so slow a pulse and depression of spirits, as to require a certain degree of support on the first attack, particularly if the patient be advanced in life, of a languid habit, and accustomed to wine drinking; but, as in health we do not take strong liquor more than once in each day, so should all vinous drinks be taken at stated times, and at first less potent than what afterwards might become necessary.

had drank an incredible quantity of wine ; at all events, I should not recommend much of any heating liquors or strong cordials, until from sensations and symptoms of debility it was manifest that a cooler treatment would not answer, having experienced that it is only towards the latter period of most disorders attended by fever, that wine or high cordials answer best.

Blisters, though generally applied in fevers, are here mostly exceptionable ; they further dissolve juices already too much attenuated, also increase irritability, leading to convulsions ; however, sometimes toward the latter stage of this fever, it may be proper to apply a blister on the inside of each leg\*, and afterwards to encourage so much discharge as can be produced by adhesive plaisters ; for though fevers generally abate in consequence of such crisis as the original causes may require, and constitution is most inclined to ; a copious serous discharge terminating in matter, always answers some good end ; besides at a later period a torpor often comes on, which requires a certain degree of stimulus to remove.

Some

\* When blisters are applied between the shoulders or lower down, they prevent a patient from resting, particularly on the back, and sometimes mortify from pressure on the part ; therefore they should be put up to the neck, and not so large as is common. This caution is at present necessary, as some of the modern enterprising practitioners conceive that blistering cannot be overdone, consequently make no distinctions in their application.



Some practitioners prefer the head for such application; and if that part is made choice of, the plaister never should rise higher than the hairy scalp, so to continue down the neck. I have heard of good effects produced from yeast, whether by occasioning a particular fermentation in the stomach, and so extending to the juices in circulation, or merely by a purgative effect, I have not heard directly accounted for, but many recoveries have been attributed to the taking of it.

Some bold practitioners recommend the cold bath\*, which, except in a few instances, I have not known to answer, and those were in habits much relaxed; when in health, such a sudden chill as the immersion must occasion, generally brings on distress, either in the lungs, kidneys, or bladder; this experiment, even in India, is ventured on with the greatest caution, and never for such as have lived irregularly, or are full in habit, and only attempted in the warmest weather; doubtless

\* I should suppose the employment of one warm bath salutary in the commencement of most fevers, as thereby every part of the surface would become more cleared, consequently the entire frame more refreshed; and should any water be absorbed, it might prove beneficial; the patient in some cases might continue in until the water became cool, but not to such a degree as to chill. This measure is advantageous for the poorer orders, who have not the benefit of clean linen so frequently as is necessary for the preservation of health: and in many cases it may be proper to repeat bathing.

doubtless if feverish ardour \* could be safely suppressed and so extinguished, such process might effect it; or were we certain that a crisis could be forced, before disease was completely matured in the habit, such shock might effect it; but I fear much, that after necessary evacuations, if subacid liquors taken cool, the refreshment of clean linen put on warm, and an admission of the purest air that the lungs can be refreshed by, do not oppose encrease of putrescence, so as to enable the habit to rise over this dangerous disease; external employment of cold in any manner will not answer good purposes.

The successful conduct of most fevers, is like the guidance of a blind man through an unexplored labyrinth, where if hurried on, or suddenly checked, the benevolent leader may unintentionally throw him down. I would not however be understood as attempting to restrain the experiments of the chemist, limiting the researches of the minute anatomist, or not allowing due credit to the virtues attributed to herbs; a certain degree of knowledge and proficiency in all those branches is fundamentally necessary to complete the

\* If the action of cold is wanting in a fever, I think spring water to which a little wine is added, if necessary, is a more safe mode of strengthening the system, and cooling the ardent circulation, than by chilling the surface. We observe the good effects of common water among the poor who have no other drink.

the education of a physician; but it is experience, perseverance, observation \*, and steadiness founded on common sense, that constitute the sound and useful practitioner; and it is principally for the removal of acute acquired disorders, chronic fixed complaints, or anomalous diseases, which have eluded the regular exertions of art, that experiments † are warrantable; but in the conduct of most fevers, particularly such as are not absolutely inflammatory or symptomatic, certain rules are to be observed, and critical days waited for; and after the bowels have been duly emptied, and stomach, if necessary, cleared, the disorder should in most cases be suffered to form and mature before it can regularly decline; during which progress, defective secretions or discharges should reasonably be increased; and if either should offer spontaneously, however copious or contrary to the expectation or wish of the physician, such should not hastily be restrained or counteracted,

\* It is to be observed, that men of moderate talents have often been considered successful practitioners, particularly in the treatment of fevers; I suppose from their humbly adapting remedies to the exigencies of nature, and not presumptuously attempting to force her to submit to art, and change the regular course.

† Chyan pepper has sometimes been administered; I suppose from its power of preserving dead flesh; musk juleps also, from their effects on the nervous system; the first from its great heat, is rather injurious, the second might be of use, particularly for females, who whilst in health did not dislike that smell, which to most people is overcoming.



counteracted, otherwise the efforts of nature \* frustrated, she might never again make exertions so favourable for the removal of disease.

Some practitioners experiencing that the general treatment of this fever had proved so unsuccessful, have administered bark † ; the effects from it were to clear the urine, and retard the motion of the pulse, by which the fever seemed to abate; but after a continuance of the bark, for some days, a fatal burst of blood issued from the nose or lungs, and death often followed, in consequence of the restraint of such secretions, as would have gone on, had this tonic not been employed; however when there is neither raving, pain in the head, yellowness, or inflammation of the eyes ‡, breathing affected, or any symptoms of bile likely to accumulate; and when after the eleventh day, heat, relaxation, and debility, attended by colliquative

\* When we see so many miraculously get through fevers, who have nothing more than pure water to drink, we must gratefully acknowledge the tendency to regain health, so evident through the entire animal creation.

† If either sex should be weakly, or of an acrimonious constitution, there is more security in giving bark than where there is natural strength and redundance of morbid juices, which must take time to clear out.

‡ A suffusion of the eyes never goes off, except by either a critical hæmorrhage or purgings, therefore this appearance, above most others, should deter us from an employment of the bark in any form.

liquitive sweats, continue in weakly habits without prospect of abatement or any salutary crisis, in such relaxed melting state the interposition of a small quantity of a cold infusion of bark, to which acid of vitriol is added, may be ventured on, and taken for the space of twenty-four hours; it then should be discontinued \* for three entire days, during which time the fever shall rise again; we may afterwards interpose the like infusion for the same space of time as before, alternately checking and encouraging the progress of fever; but the first not so forcibly as to prevent any critical secretion, evacuation, or eruptions, which might be expected to offer, such remitting employment of the bark producing similar effects on the increased and heated circulation, as a small quantity of cold water does when the ebullition is too rapid for the complete regular coction of certain vegetables. However, such experimental practice is only warrantable where the subject was much relaxed, previous to indisposition, together with appearances of encreasing putrescence and extreme debility.

Many

\* Though the bark is to be omitted, wine should be continued; for nothing can be of worse consequence than the withdrawing such support as is thought necessary to commence by in this species of fever. If perspiration should suddenly abate, from an use of the bark, and not return, it may then be necessary to give a few grains of James's powders to bring it on again, as the sudden restraint of this secretion, though previously too profuse, might affect the brain.

Many bold prescribers strongly recommend the use of antimonials in this fever, and in compliance with public opinion, prefer James's powder, which sometimes promotes salutary perspirations, also discharge of bile; but frequently by over-purging, forcing perspiration too copiously, the strength becomes prostrated before any regular formation and separation of the morbid affection can take place; yet a moderate employment of antimonials, either in the commencement of a fever, or where a crisis is tardy in coming about, may be critically useful; however, when we observe the inhabitants of entire parishes to recover from fevers, where but few medicines are taken, we may conclude, that after the necessary evacuations are procured, the over employment of active measures is more injurious than their entire omission.

I recollect some years back having attended two brothers, who died of putrid fevers, between the ages of thirty and forty years; the third, on being so attacked, took James's powder in large quantities, which at first purged him, afterwards produced most profuse perspirations; the skin then became cool, and fever abated, he got out of bed, and took the air, but felt feeble; he was ordered to Bristol wells, where remaining the whole summer without much change, was brought back to his native air on the approach of winter; a cough came on, followed by a co-



pious expectoration of putrid matter, which soon put a period to his existence. On opening the chest, his lungs \* were found full of matter; I suppose, in consequence of so much reduction by the operation of medicine, as to prevent the maturing and discharging of that diathesis or primary cause which created the fever, therefore fixed its deadly abode in the lungs; probably the event of fever would have been fatal, had such active means not been employed; yet nature, when not too much counteracted and reduced, has so many resources, that we are not to despair, though the further administration of medicine should cease.

\* Not one of this gentleman's family was ever known to die of a decline; therefore I think his death, in this manner, was brought on, by counteracting the regular course of his fever.

## C H A P. XXX.

RUPTURES appear in infants of both sexes at an early age, but more generally among males : after the gut has been returned, it should be kept in by a truss, until the parts acquire strength ; the diet should likewise be attended to ; all rich relaxing food refrained from, and every liquor taken rather cool ; the part should frequently be sponged with cold water, to which, at times, spirits may be added ; and, if the lungs be not delicate, general cold bathing is useful, and the extremities to be kept warm. Yet, notwithstanding every attention toward the middle or latter periods of life, particularly in relaxed female habits, the gut, or omentum, and perhaps both together, shall from various causes, so frequently come down, and remain so long as to be found impossible to return. Here we are pressed and encouraged to the operation of enlarging the ring ; as in chronic hernias, we often find the parts so much thickened, and adhering to the peritoneum and teguments, that they could not be separated until laid bare by incision ; also there is a good chance that such enlarged substance shall not descend again after being replaced, of which we are not always  
certain ;

certain; when it is only the gut or omentum which singly comes down in a recent case and unaltered state. However, even under such complicated circumstances, the dread of a mortification setting in, and discharges by stool entirely interrupted whilst vomiting continues, are the only reasons to be assigned for undertaking this operation, which is more disagreeable and dangerous than any other in surgery. Yet, in females, among whom such a state of hernia is most general, I have frequently seen it successful. In males it is generally fatal, both from the exposure of the spermatic chord, inflammation and tension succeeding to the wounding of membranous and tendinous parts, ever followed by more dangerous consequences in males than in females; therefore should rarely be attempted.

This complaint is sometimes brought on in the highest state of health and strength, among the most athletic, either by wanton feats of activity, falls, or necessitous exertions in laborious employments; and sometimes by coughing, or over-straining to force a stool when costive. In all cases of this description, the operation ought scarcely be proposed, and every means should be persevered in for returning whatever protruded: first the legs should be extended over the shoulders of a strong man; both hands of the surgeon are then to be applied, and continued pressing  
and



and shifting repeatedly, so endeavouring to work the gut back by continuance of pressure; and it shall often slip in when you least expect it; if, then, such a repetition of attempts fail, blood\* must be taken from the arm plentifully; however, our principal reliance should be on clysters, to which Thæbaic Tincture is added, but only in a small quantity, as opium thrown into the intestine has a most powerful effect on the nervous system. And as we might have occasion for a repetition of this remedy, I would not advise the commencement of it to be in a greater quantity than by forty drops of thæbaic tincture in each clyster, which answers best when thrown up by a syringe, containing at least three pints: if such machine cannot be procured, a large bladder may answer; but the pipe should be wide in proportion; from which we might suddenly fill the intestine, and possibly the liquor might pass up so high as to draw in the incarcerated portion.

I once was witness to the gut returning after a repetition of this measure for ten times in twenty-four hours. The mother effected the  
business

\* It is only from the quantity of blood taken away, that we can judge it necessary to repeat this measure; and not from the quality: as a continued state of agony, from a local cause not removed, always occasions the blood altering so much as to become buffed instantly after being drawn from any part.

business for her only son, who vomited for seven days, with every appearance of a complete mortification; and since the reduction, he has enjoyed perfect health.

The experiment of cold water, or ice, to condense the confined air, is most exceptionable; as so sudden a chill to the intestine, which never before encountered cold, might produce a fatal stagnation in circulation, terminating in a mortification; but if any one attempts it, the continuance should be but momentary, and only where it is the gut alone which has come down; as the omentum, from its soft oleaginous consistence, would suddenly become so hardened as, perhaps, never to recover its natural state.

Some years back I was called to a chairman, whose situation, after repeated attempts for reduction, became so desperate, as to authorize any experiment, however hazardous; and particularly as the gut was so much tumified as not to afford the smallest hope of being returned whilst full of air. On the seventh day, I procured a trocher of the smallest size that could possibly be made with effect; which on introducing, by the approbation of Doctor Quin, a physician of uncommon sagacity, the air was instantly discharged, through the cannula, and on immediately giving a copious clyster, the gut returned. However, he did not long survive.

On

On opening the body, we found the gut completely mortified : had this operation been performed earlier, it might possibly have succeeded. I could not, by the closest investigation, discover any mark of the puncture ; nor could I suppose it to have accelerated his death. I have not since repeated this operation ; and now do not advance more in favour of the experiment than merely to recite a fact, and to observe, that in this last described hernia in males, I should never encourage the employment of the knife.

I recollect being in Paris many years back, when an itinerant Rupture Doctor advertised that this complaint, if chronic, was curable by caustic applied, after the gut had been returned ; so to make an eschar, producing a firm cicatrix. He was permitted to make his experiment in the Carthusian College, where seventy men were found ruptured ; which was supposed to be occasioned by their living on fish, fallads, and oil, without taking proper exercise. Twenty-seven died, on whom the caustic had been employed. Fortunately for the Doctor, they had no heirs to prosecute him ; and the surviving brethren of the convent agreed that leaving this world, from the enjoyment of which they so long had secluded themselves, was only a completion of their happiness.



## CHAP. XXXI.

THE operation of trepanning, or cutting out a certain portion of the scull, has hitherto been thought the only mode of remedy in most injuries done to the head, and many deaths have been supposed to happen from either the neglecting or too long deferring this measure.

Such cases, it must be allowed, have often occurred; numerous, however, are the instances we have to deplore, where the operation has, in itself, proved fatal; or has, at best, only accelerated the mortal termination. A question, then, of no small importance to mankind in general, here naturally suggests itself, namely, in what cases this operation may be necessary, and where does it become useless or even injurious. The utility of such inquiry further appears, when we reflect to how many accidents and injuries the head\* is exposed, and how essential to our being is the due preservation of its functions. A distinction then, of this kind, I look upon as one of the most useful improvements in surgery;

\* After any accident of magnitude received on the head, it is well to inquire whether ever the patient had been subject to fits, or was liable to vomit occasionally.

furgery ; and fhall, therefore, endeavour to point out thofe appearances and fymptoms, by which we may be moft affifted in our attempt to afcertain the object in queftion.

All accidents affecting the cranium and brain, may be comprized under the following heads : Simple concuffion, with or without extravafation ; Depreffion ; Incifion ; and Fiffure, or Crack ; to which laft, for reafons to be mentioned hereafter, I fometimes give the title, Compound Concuffion. Now, though the general intention of cure be, by means, nearly the fame in all ; yet, the refpective management of each accident, varies according to the degree of derangement in the animal functions thereby induced.

The fymptoms following a fimple concuffion or general fhock, and where there has been no extravafation, are vomitting, vertigo, ftupor in various degrees ; all which, though they take place in that concuffion with extravafation, yet here come on infantly or immediately after the accident, by which circumftance we may be guided in afcertaining the extent of the injury received. In this cafe of fimple concuffion, the fymptoms I have enumerated, generally abate after the employment of evacuations, proportioned to the fupposed magnitude of the accident, and particular habit of body of the patient, feldom

dom resisting such treatment more than a few days. We are to rely principally on bleeding\*, though an open state of bowels should be strictly attended to, as when obstructed they might impede the regular and free descent or return of the blood, by which the head would consequently become more loaded: in most cases it frequently happens that the peristaltic motion of the intestines is much weakened; here we must have recourse to clysters more or less acrid, when purgatives by the mouth have no effect. Perspiration also, as relaxing and easing the nervous system, should, as far as possible, be promoted: and though, during this treatment, the senses and recollection should not suddenly return, yet I have known both, after some weeks, completely regained. This is one of the cases, in which the operation by the trepan is not indicated, indeed would be injurious; nor would scalp singe, except from the loss of blood, which may answer as well from another part.

The next degree of accident is, where, from the shock, one or more vessels are ruptured;  
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\* Whatever objections might be made to blood-letting, in particular habits; yet, as it is our chief reliance here, this measure should be pursued, until bad symptoms are removed, or the patient becomes too weak for further reduction. And, whenever the scalp is contused or wounded, it should be closely protected from cold; this part not coming so soon to a kind suppuration, as the cellular membrane on the trunk or limbs.



in consequence of which, an effusion of either blood or lymph, usually indicated by the symptoms above described, takes place. Here the true and only mode of procedure is by general depletion, which may be effected by copious and repeated taking away of blood, due attention being at the same time paid to a regular relaxation both of the bowels and the skin. On these must we rely solely; for, did we even know from what particular vessels such effusion proceeded, and were we able to evacuate by an incision, in itself most perilous, this extravasated fluid, we should find it impossible to restrain the further flow of blood, so that death would, in all probability, instantly follow the attempt. Besides, as blood defended from air, shall not suddenly corrupt, though extravasated, we are to look to its removal by absorption. Of this we have a strong instance in the case of a contusion on an external part, followed by ecchymosis or extravasation of blood under the cellular membrane; a tumor instantly forms, and fluctuation is soon perceived. If such tumor be evacuated by an operation, so as suddenly to discharge its contents, not only hæmorrhage, but fever will ensue, before the digestion of the wound takes place; either of which circumstances, in brain affections, must be attended with the greatest danger: whereas, when such sanguinary collections are suffered to remain well protected, and treated as contusions, the blood is in a certain time

time completely reformed, and the part recovers its former appearance. The experienced practitioner therefore, in such cases, does not proceed with either lancet or knife, but trusts to the process I have described; if, however, such tumors be near to the surface, the application of leeches\* may have some good effect.

Another injury, and the most common one, is depression, or beating in of a portion of the cranium, which, if not of magnitude †, ought to be raised immediately. In order to effect this, it is necessary to remove a part of the scalp, which is best done in a triangular form, the former mode, by a crucial incision, which some few even now prefer, being subject to so many future inconveniences, that it should be very seldom used; when the bone is laid bare, I generally have been able to raise the depressed portion

\* We should sometimes, however, evacuate the collected blood, particularly if the accident was attended with such contusion as to break down and alter the natural state of the juices contained in the tumor, and that the situation was safe to make an opening in. From such a lodgment being reformed, I have known a fatal fever to ensue, therefore no general rule here can be laid down, but to use the knife as seldom as we can: and cases of this nature do not require immediate determination.

† I have seen nearly half of the frontal bone beat in without being attended by any bad symptom; whereas had the part been raised, death would have soon followed the removal of such a portion of the natural and necessary support and protection of the brain.

portion by gently penetrating the crack or edges, with the perforator, so as to admit of the introduction of the point of a small elevator, by which it may be raised either at once, or by repeated efforts, in different parts, with a pair of strong forceps, to extract the whole, though by separate portions. Should this process, however fail, and the use of the trepan become necessary, the crown I would recommend should be as small as possible; having always experienced that the greater the exposure of membrane or brain, the more imminent is the danger.

There is one species of injury to be taken particular notice of, where trepanning becomes absolutely necessary, namely, when in consequence of a stroke, the scull gives way, and by elasticity again recovers its form; this happens in young subjects; and though no fracture appears, the scull and membranes are separated; consequently a space is afforded for extravasation, which sooner or later takes place. When we have reason to suspect such to be the case, I advise that the scull be laid bare; thus we may readily discover by the easy separation of the pericranium, heat, and dry appearance of the bone, whether the internal parts be morbidly affected\*; if so, we should make a perforation  
with

\* Here there is no progress by found incarnation to cover the bone, and shewing tendency to exfoliate, it generally becomes discoloured.



with a small head or crown, as shall be just sufficient to evacuate the scull of whatever extravasated fluid it may have contained, after which the space might fill up in due time, by the formation of a callus, as is usual. However, though in those cases there is not in general any immediate danger, yet we should not defer applying the trepan, until the more urgent symptoms call for its use.

I recollect the case of a young gentleman who received a stroke of a tennis ball; immediately after which he complained of a severe head-ach, which continued for six months, he was then seized with convulsions, and expired. On opening the head, we found a considerable quantity of matter immediately on the dura-mater, from which I should suppose that the operation of trepanning, had it been performed in time, would have probably here proved successful.

Another case of a similar accident, I remember, was that of a young gentleman who had received a violent blow on the forehead, making a small depression which could be raised no otherwise than by the application of a middle-sized crown; on exposure of the membrane, there was no extraordinary appearance of the part; but, after fifteen days had elapsed, the dura-mater, having changed its healthy appearance, whilst the vomiting continued to increase, I ventured

tured, with a lancet, to make an opening, out of which issued a considerable quantity of absolute pus. The foetor was so great, that I was obliged to throw in an injection from time to time. At length all parts became healed, his senses returned, and he continued well until the day twelve-months after the accident, when, about the same hour that he had received the original hurt, he was seized with convulsions, which continued some days. For seven years, at the same day of the same month, he was more or less alarmingly attacked; and at length, became perfectly well. From this, may it not be inferred, that those who are subject to epileptic fits, as well as those who are under the influence of the moon, have a degree of imperfection and debility of the brain, constitutionally, and perhaps from hereditary taint, subject to consequences similar to those which here arose from injury. This, however, I leave to more able physiologists to account for,

The fissure, or crack, though seemingly a slight injury, is yet often found to terminate fatally; and though the symptoms might call for the application of the trepan, yet in most instances, little advantage is to be expected from the operation; as, in order to have occasioned such giving way of the scull, the shock must have been too considerable to be remedied by the taking away any part. Such cases I should

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treat

treat as concussions, requiring plentiful and repeated evacuations; though it must be allowed that the appearance of the part may in future determine the expediency of perforating. This species of injury I should term a compound concussion, it having been often observed that the fissure had happened on the side opposite to that on which the injury had been received.

The incised wound, though seemingly not requiring any further treatment than detersion, is yet sometimes attended by symptoms which shew that the internal has been more injured than the external table. In such cases, we may apply a small crown to the most depending part; by this we shall be able to remove the depressed portions, after which the symptoms will in general abate.

On the whole, every accident on the head should be treated with extreme caution and deliberation, our general aim being at evacuation, and in the mode I have pointed out. As to any operation, that should be maturely considered; and its necessity quite obvious, before it is entered upon.

The State Physician of Dublin, who attended the hospital for lunatics, conceiving that lunacy was curable by trepanning, ordered the  
operation



operation to be carefully performed on two patients, the one a male, the other a female: the first died on the third day, from fever, and inflammation of the dura mater, the other barely escaped, but without receiving the smallest benefit. We cannot here be at a loss to account for the fatal symptoms which followed the operation, when it is considered how closely attached the scull is to the dura mater, and that the forcibly separating parts so firmly united, must necessarily be followed by inflammation and fever, particularly in a situation never before exposed to air, nor deprived of its natural and close protection.

Some time since, I trepanned the head of a boy, who had received an injury on that part; a pale fungus soon protruded, which it was impossible to restrain, except by great pressure; during the continuance of which, he remained lively and tolerably well; but no sooner was the pressure discontinued, than he became lethargic, it being impossible to manage the part to our wish; he at length died apoplectic.

From this and many other instances, it would appear that the brain will bear compression much better than the loss of its natural support and protection, which is destroyed more or less by taking away any portion of the scull. And, so far from agreeing with the Doctor's

experiment, I should rather conclude that trepanning would be more likely to produce insanity, than to remedy it.

## CHAP. XXXII.

THE Hydrocele is a disorder either simply local, which probably might have been produced by some accident, or from the effect of a constitutional cause, if of the first description, a radical cure may be performed; but if the cavity had filled from any previous morbid necessity in the habit thus to unload itself; we should rest satisfied, by drawing off\* whatever may be contained, so often as the weight becomes inconvenient to be supported. This complaint frequently appears in infants shortly after birth, partly from debility, in addition to some injury received on bringing into the world. In all such subjects, any mode of operating should be deferred, until the effects of time and management had been sufficiently tried; as that degree of inflammation which might be necessary and safe to produce a radical cure in an adult, would in an infant, from irritability, bring on such symptoms as at best to alarm the most experienced

\* I now visit a gentleman eighty-seven years old, who has been regularly tapped for upwards of forty years; he is yet of a corpulent habit: and, I suppose, had a radical cure been performed at any time, he would not now have enjoyed such good health.



perienced practitioner. Beside, though water may be in the sack, yet I have often known some degree of descent of the gut connected with this disorder; therefore, in all such patients, it is prudent to wait until years of more maturity; but at an after period in life, when the disease cannot be traced back to any accidental cause, and on our being certain that it could not be misconceived\*, it then becomes a question of much importance to decide whether we are to proceed to the radical, or rest contented performing the palliative cure, so often as the enlargement of the part requires emptying; and previous to a final determination, we should be well informed whether any marked hereditary† disease

\* The weight of the part, and smallness of the cord, are in general good criterions to decide from; however, in some cases the water mounts up to the ring, but this state of enlargement may be readily distinguished from a solid or schirrous substance.

† I lately tapped a gentleman for an hydrocele, which came suddenly on, and was so large as to contain one pint; the part did not fill again, but he died of a dropsy in his chest, within the year; and being of a scrofulous habit; I supposed that the same morbid cause which might have formed matter in some part. When directed to the chest, testicle, cavity, or abdomen, could only deposite a serous fluid in those situations, which though not discoloured, yet might prove equally relevant to the constitution, as common suppuration: and in as much as the discharge from any abscess should not be too suddenly restrained, it in our power, so perhaps, a radical cure of the complaint in question, might in many cases be more safely effected after the second tapping, than in the first instance.

disease existed in the person to be operated on, or had been attached to any of his ancestry, such as gout, asthma, spleen, or liver affection, if then no such cause of objection appeared, and that the size of the part was not uncommonly\* great, we might begin prepared to complete a radical cure, and in the following manner, which after various modes repeatedly practised, I have reason to prefer: first, let a bandage be formed of three pieces of broad tape, laid parallel, which are to be placed at half an inch distance from each other, and supported by three cross bars of the same tape, to preserve them in a fixed position, so far as to embrace the testicle up to the ring; we then are to proceed by drawing off what may be contained; first, I must observe that the more simple all operations are, the less frightful or disappointing; therefore I do not advise beginning by opening the skin with a lancet, as by this mode we frequently cut a vessel, which, though inconsiderable, yet in the setting out may embarrass an operator, and alarm the patient; beside, the dividing superficial skin, gives more pain than cutting deeper; but if this method be preferred, I find it best to lay

\* When the collection became suddenly very large, and that no external injury had been received, we then might suppose that some probable necessity, or occult obstruction existed in another part, requiring this deposit; in such case the complaint is more than local.

lay the lancet on, which should be full shouldered and short pointed; then to draw it back, as in scarifying, which is less painful than by ripping upward; however, I object to the incision in any manner, and recommend beginning by boldly introducing a trocar, guarded by the finger, so as not to enter too deep, and carefully to avoid any blood vessels. Afterward, when the water is entirely evacuated, should it not appear much discoloured\*, and that the testicle and cord are not found enlarged, I apply the bandage before the cannula is withdrawn; and close it so tight, that any remaining fluid shall come out: in this state the part should continue for two or three hours, when the cannula may be withdrawn, first endeavouring to get away any fluid that might remain, which should we find, it might be proper to leave the instrument in longer, still observing the necessity of further tightening the bandage; but when the cannula is entirely taken out, I still continue the bandage tighter or looser, to create more or less inflammation, as the circumstances shall require. I then apply a compress of flannel, wrung out of strong spirits, which is to be renewed; by this process an adhesion or sufficient contraction takes place, so as in eight or ten days to answer the end,

\* I recollect a radical cure being made when the fluid contained was of a jocolate colour; and in a short space of time afterward, a fatal obstruction formed in the spleen.



end, provided the testicle and tunica vaginalis \* be in such a state as to admit of a radical cure, either by seton † or injection, the first of which methods is painful and hazardous, and the latter sometimes has been experienced to bring on so much inflammation as to alarm most seriously; from the introduction of a foreign fluid into a cavity never before so acted on; and as all men are not equally irritable, the same stimulating cause which one person scarcely perceives, may bring on convulsions in another; therefore, from such considerations and a general wish to simplify all operations, I prefer pressure alone, and in this manner applied; and should it ever fail, the patient need not repine at not having undergone more pain, or a greater operation than tapping.

The following occurrence in practice, induced me to adopt this method, which hitherto I have not had reason to alter:—The servant of  
an

\* Sometimes the tunica vaginalis is so thickened, that a cure cannot be effected except by taking away a certain portion of it; but if an opening be made too large, the inflamed testicle shall protrude, and convulsions come on; and should such danger be escaped, the denudated part afterward feels cold and unprotected.

† I have seen a locked-jaw follow the introduction of a seton, and always more inflammation than was necessary for either contraction or adhesion.

an old Lady, to whom he was only objectionable from a prominent appearance which he could not conceal, applied to me for the cure of a very considerable hydrocele, but could not confine himself; therefore I only tapped him in the usual manner; after which he put on a tight pair of leather small-clothes, and wore them for the entire day, though suffering great pain from pressure, which kept up such inflammation as to produce a radical cure.

Sometimes we find a considerable quantity of water with a testicle enlarged and indurated; in such cases I have experienced success from a mercurial course by frictions, the effect of which was both to reduce the hardness, and produce an increased effusion of water; therefore another tapping became necessary; afterward I perfected a radical cure: such success induced me to employ the like process in a dropsy, the consequence of a liver absolutely enlarged and obstructed, in which I was not so successful; and the mercury rather increased the effusion, without any reduction of the liver. I suppose this bowel being so much greater in size, and essential to the functions of the animal economy, consequently more uninterruptedly employed, became less curable when so diseased; yet in some cases, perhaps, this measure might answer, therefore should not be entirely rejected.

A woman

A woman who had foul ulcers on her thigh, used drying applications to the parts, from which the sores healed : the abdomen soon filled with water, and in the space of fifteen months, I drew off one hundred and fifty quarts of clear water during this time she took but few medicines, and indulged in meat and drink ; after the last tapping, which brought off more than twenty quarts, an eruption and spots of a copper colour appeared and continued over her body, and no water collected ; from which I conclude that in many instances, dropsies in any parts may be critical, though, from situation, fatal substitutes for constitutional discharges of humour of any kind. And if we are to expect that nature shall substitute or regain lost secretions or discharges after tapping, abstinence and forced evacuations, perspiration excepted, shall ultimately in most cases only tend to enfeeble.



## CHAP. XXXIII.

THAT diseases may arise from accidents and mismanagement, is in a great degree proved by the following occurrence in practice, on making an issue in a languid man who was subject to epileptic fits. I did not remove the first dressings, until the seventh day, for the purpose of creating inflammation and discharge, at that period a fever arose, which continued for three days, when an eruption appeared over the entire body, which filled regularly, and matured like the small pox; the wound assumed a most alarming inflammatory aspect, so as to prevent the introduction of a pea for many days; all those consequences I suppose to have been produced from blood and juices not refreshed, but suffered to corrupt, which being resorbed, became self-pollution and newly-created disease in the system; how far the same could have been communicated by inoculating from the pustules, I cannot decide, but am certain that similar eruptions appeared on various parts of the nurse who attended. From such effects produced by such a cause, we may observe the necessity for timely evacuation of confined matter when completely matured; also regularly digesting and deterging all wounds which cannot be healed by the first intention,

intention, so to prevent constitutional contamination, or ill-conditioned ulcers forming; which after continuance for a certain time, might prove difficult to heal, and sometimes fatal.

The itch is a cutaneous disorder, attached to most of the lower orders of the inhabitants of cold climates, who subsist on dry heating sustenance, and are not much disposed to cleanliness; consequently insensible perspiration is checked in the exit, and forms animalculæ under the scarf skin, which encrease and continue until destroyed by sulphur, strong acids, mercury by friction, or some other specific applied on the surface; internal remedies, sulphur excepted, being unnecessary and ineffectual, the same complaint shall revive if original causes be not removed. Tailors, weavers, and mechanics of sedentary occupations, are more subject to this disease than men of corporal exertion, who must perspire freely in their daily labours: therefore employment and manufactures should be established, suitable to the climate and soil. It is fortunate that wool is plenty in cold countries, and not too coarse for making flannel, which covering answers better next to the skin, particularly in the winter, than cloth composed of either flax or hemp.

This complaint being considered disgraceful and infectious, together with the remedies for its  
cure

cure so simple and effectual, have occasioned fatal mistakes, particularly in childhood and advanced life; at both which periods, eruptions often prove salutary; therefore, for all subjects of this doubtful description, warm bathing ought repeatedly to be employed before the surface is rubbed with even the mildest applications, and when the process of rubbing is concluded on, frequent warm baths should be interposed: be it observed, that if any eruptions discharge much, and are more on the trunk than on the hands and fingers; such are at first constitutional, though ultimately they might terminate in an itch, not to be cured but by rubbing.

Bark\* being considered so efficacious a medicine, active practitioners are fond of prescribing it; yet, an indiscriminate use has often been attended by the worst consequences. The late Sir N. Barry, of high reputation in physic, supposing that Red Bark possessed particular superior medicinal powers, commenced a course of it to correct a chronic hereditary cough and defluxion; this tonic encreased his appetite and afforded temporary strength; but, after taking  
it

\* As this medicine generally encreases the appetite and powers of digestion, and is considered to put an end to indisposition, most patients are happy to take it, therefore a practitioner is frequently persuaded to prescribe Bark, in some form, not entirely conformable to his own judgment.



it for some continuance, he was suddenly seized with a difficulty of breathing, which was succeeded by such copious expectoration of absolute matter, as to exhaust his entire strength in the course of fourteen days; the quantity of digestion and phlegm which should have been regularly discharged in the natural time and course, had from restraint so overcharged the lungs and circulation, as to require such profuse and fatal bursting. His sister who was much older, and took no medicine, survived many years, subject to a similar cough and defluxion.

I was well acquainted with a naval officer, who was seized with a fit of the gout\*, which settled in his great toe, and being summoned to go on board ship, he took Bark, on which the inflamed part soon became pale, and pain ceased; he then was affected with head-aches that seldom abated for twelve months; at the end of which period, a regular fit of gout took place. I have observed that the nails of gouty habits are dry and brittle, with further appearances of tense  
and

\* I certainly cannot approve of taking much Bark, after fits of the gout have terminated: could we find a medicine that would brace and strengthen animal powers, at the same time produce plentiful secretions, every salutary intention would be answered; but as Bark, for a continuance, by universally contracting, must, in the end, abridge every discharge, but perspiration in particular; though its temporary effects may appear salutary, principally for digestion, yet ultimately it must injure gouty constitutions, whose fibres are in general too tense.

and arid fibres, which tendency in constitution is encreased by Bark, or any other strong bitter.

I was called to an officer who received a wound on the centre of his thigh, which extended up to his groin, under the cellular membrane; he had commenced taking Bark from after receiving the injury until the tenth day; but no suppuration coming on, and the part continuing to discharge only pure blood, Mr. Renny, who was attending surgeon, readily agreed to a discontinuance of the Bark; and on the fourth morning a regular suppuration commenced and encreased, afterwards gradually diminished, and the sinus healed without either dilatation, or a further use of any medicine. I have taken the liberty of mentioning the name of the surgeon who attended, to stamp the authenticity of the case, as he is a gentleman high in character, to whom the Medical Board and Governors of most charitable Institutions in Ireland, consider themselves much indebted, for rules and regulations, particularly in correcting great abuses, by the indiscriminate administration of Bark, in military hospitals.

I knew a young lawyer who lodged in an apothecary's house, and had free access to the shop; he was advised to take Bark, for a particular weakness which prevented his marriage;  
on

on continuing and encreasing the doses for an entire month, he gradually began to stutter, and was suddenly seized with spasms in the night, which encreased to such an extreme as to prevent his uttering one syllable; the cause being accidentally discovered, warm bathing and opium were immediately employed, from which, in the course of a few days, he gradually recovered.

Bark is frequently necessary in very relaxed habits, to brace in a certain degree, so as to enable such subjects to withstand the operation of mercury, particularly when employed by unction. But, as astringents counteract the beneficial effects of mercury in most constitutions, by restraining salutary and necessary secretions, particularly perspiration, the employment of Bark, in all such cases should be limited.

I lately visited a young Gentleman of languid habit, who underwent a course of mercurial frictions, for the cure of an ulcerated venereal sore throat. After two months using both Mercury and Bark, the ulcer daily enlarged, though we had every reason to suppose that venereal contamination had been eradicated, and that the encreasing, or at best, stationary state of the ulcer, arose from the Bark \* contracting the extremities

\* This case is necessary to mention, as some modern practitioners suppose that by a joint employment of ener-



extremities of such capillary vessels, as should have thrown out regenerant juices, to replace the lost substance. The Bark was accordingly withdrawn, after which the ulcer soon filled up, without further administration of medicine in any manner. I cannot say but a moderate use of Bark in the commencement of this course, might have been necessary, yet I am confident that a further continuance of it would have proved fatal. Such considerations should always operate when this or any other energetic measure is resolved on, and the dereliction of the best considered process, is no reflection on the judgment of any prescriber.

So far have I observed the bad effects of this medicine, injudiciously employed, or too long continued; but when restraint of humour, or occasional bracing of the solids in either sex\* is required, Bark is the safest and most effectual of all tonics. The languid studious man, confined mechanic, chamber lawyer, or other sedentary character of any description, whose nerves, for want of air and exercise, become relaxed, and whose digestion fails, may occasionally  
take

getic medicines, however differing in their sensible operations, recovery must be forced.

\* We should be cautious in administering Bark to females; for though some parts of the system should require strengthening, yet we might brace others too much, by which the regularity of constitution would be injured.

take this medicine, either in substance or tincture, laying it aside the instant the breathing feels affected, the urine becomes pale, or any salutary secretion diminish; for otherwise that which in a moderate degree was medicinal, shall produce contrary effects. In the primary, which is the inflammatory stage of all wounds, Bark injures by restraining and impeding the natural fever, perspiration, and process for suppuration, all which tend to abate spasm and pain; but if the discharge continues too long, let the parts be minutely examined, probed and pressed, in order certainly to discover whether any sinus or local restraint exists, until after the removal of which, no cure could be effected. If none of those causes appear, we should first administer calomel, or such preparation of mercury, or any other medicine that the state of the juices most required, after which, should the discharge continue, we are authorized to prescribe Bark; being the safest and most effectual tonic which has yet been discovered.

Some practitioners recommend powdered bark to be sprinkled \* over raw ulcerated surfaces, or  
cavities

\* There can be nothing more absurd than to suppose that because a medicine is efficacious, when taken by the mouth, that it should have equal good effects used externally; particular ointments are powerful in curing ulcers; but if forced into the stomach, would produce direful bad consequences.

cavities which succeed to the separation of morbid floughs; concluding that from an antiseptic power, it locally counteracts putrefaction. But, here its effects are only to dry up, give pain, and restrain the free flow of matter, and to render the morbid parts putrid and offensive; for nothing can contribute more to the refreshment and cleansing of ulcers in a corrupt state, and to prevent encrease of local acrid humour, so effectually, as the most detestive applications, in any of which, turpentine or honey are excellent ingredients; the first in ointments, the second in situations where a lotion is more proper to use.

Ingenious practitioners, particularly those who value themselves on a knowledge in chymistry, suppose that by combining medicines of an opposite operation to Bark, the too great astringent effects on the chest, or general secretions, might be guarded against. This tonic, however, is only absolutely necessary in agues, extreme relaxation, or such a species of mortification, as arises from acrid juices, and relaxed solids, which state should suddenly be altered, where it must be administered: but, in every other case, where the smallest doubts arise as to the security of employing it, I should be inclined not to prescribe it in any form. Such caution is necessary to men of the first talents early in their practice: similar observation, though from opposite reasoning,



reasoning, may be useful in the administration of opium, as both those medicines are frequently interposed where the regular though slow processes of nature, particularly in fevers, would securely, in due time, terminate disease. I have observed that Bark shall abate a periodical pain attended by fever; also when any person free from such complaint, takes this medicine for a continuance, pain shall fix in some part. Such effects in the first instance to be accounted for from the restraint of feverish exertion to create critical local pain; and in the second cases so powerful an astringent, restraining all secretions, and contracting the entire system, rigor and pain must necessarily more or less take place in some part.

It has frequently been observed, that in the cure of an ague by Bark, a rheumatism has come on; for, though this medicine should purge, yet its astringent effects may operate through the system.

## C H A P. XXXIV.

POULTICES assist in the maturation of tumors and abscesses; they also assuage pain in cases of great tension and inflammation; their salutary warmth is retained, whilst the diseased parts are replete; but after the contents have been discharged, consequently heat abated, they then soon become cold, and act rather as repellents, particularly bread and milk, which, by turning sour\*, chills and restrains what should be cherished, and encouraged further to discharge. Some who are advocates for their continued employment, recommend repeated renewals when they cool; but as this is a most troublesome process, and as they can scarcely be applied equally warm, the lips of openings in time become hardened and livid. When, therefore, matter has been discharged either by incision or a natural bursting,

\* The more acid all poultices are, the stronger their astringent effects. Flummery, made with oatmeal, is very efficacious; also oatmeal and sour milk boiled; and though such are supposed simple, yet being powerful, a proper discrimination is necessary in their employment, particularly for females, whose breasts have often become obstructed, in consequence of the sudden restraint of what appeared a trifling discharge from some distant part.

bursting, let such digestive ointments be applied as are most likely to cleanse \*, incarn, and heal ; all which should be first covered by a piece of soft linen, then a fold of flannel, which in cases threatening putrescence, may be pressed dry from warm spirits of any kind, and over the entire, should the season be rigorous, may be laid a covering of soft paper, or oiled cloth, which most effectually excludes cold air, as this is often inimical, particularly when openings are large in complaints deep seated, or on the extremities, where the circulation is naturally languid. However, in collections on the knees, elbows, hands, feet, or breasts of women, when discharging, poultices afford an easy bed and support to those parts which it is difficult to preserve in a steady position ; but then they should be composed of warmer ingredients, and such as do not turn corrupt or sour. I prefer oatmeal and water, boiled thick, to which in some cases beer or porter may be added, with a little honey or turpentine spread over to make them more deterfive, yet even with this caution if the orifice of any abscess becomes cold, or livid, and the discharge not sufficient, every species of poultice should be withdrawn, and dressings

\* Early in my practice, I applied and continued a bread and milk poultice to a tumor which suppurated on a Lady's hip ; it soon became healed, without discharging sufficiently ; but shortly afterwards the glands of her neck obstructed and suppurated. Had the first tumor been properly drawn, she would not have been so miserable a victim to my bad management, arising from inexperience.



dressings applied, as before directed; on their daily renewal, the parts ought to be cleansed with a sponge, or cloth pressed from warm water; and in some cases from a weak infusion of chamomile flowers, which also answers the end of a fomentation. However, when any part of this description does not amend under the use of the best chosen applications, we should change our measures, though to return again.

I lately visited a farmer, thirty-five years old, who used a poultice of bread and milk, for six weeks, on a glandular tumor under his chin, which had partially suppurated and burst; it became, when I saw him, the most incurable cancer that I ever beheld; neither the nature of his original complaint, situation, or time in life, could have produced such an extreme of this dreadful disease; but the application becoming acid and cold, extinguished natural heat, chilled and impeded humour from discharging, therefore obstructed, and formed this unexpected disease.

\* That lead possesses a sedative power, which allays inflammation, is not to be doubted; and though a free use is exceptionable, yet a well-regulated employment of it, is safe and effectual: accordingly, after spreading a poultice of oatmeal and water boiled, I advise sprinkling it over with vegeto water, which answers as an excellent anodyne application, and cannot produce lethargic effects. Such cataplasim is extremely useful where we mean to extinguish cutaneous inflamed eruptions, of such nature as should be suppressed; it also is proper in the *Hernia Humoralis*, or any other painful swelling which is safe to disperse.

disease. The mention of so melancholy a case, is more necessary, as a bread and milk poultice has hitherto been considered an application which in any stage of a tumor or ulcer, could not injure. In cases of strains in the elbow, ankle, wrist, or knee, with swelling and a livid appearance of the part, strong acids, or preparations of lead, should not be too generally employed; as by such restraining applications, the finer juices are repelled, and the grosser remains may thicken, and become difficult to disperse; besides the lead frequently enfeebles the part so much as to prevent it from recovering in future its natural power. This caution is necessary in swellings of the testicle\*, where Vegeto Water had been liberally used.

I recollect being called to a gentleman, whose friends supposed him expiring: his sweats were cold, and voice gone; by chance I discovered that he had for three weeks been applying a  
poultice

\* The practice of applying leeches to swelled testicles, is now become general, in my opinion without reason. I cannot see what advantage can arise by taking blood from the superficial vessels of the scrotum, where the body of the testicle covered with two coats, is the part tumified, either from accident or discharge restrained; in the first instance, plentiful blood-letting, emollient applications not too relaxing, together with a support of the part, and confinement, will answer. In the second case, amendment shall arise in consequence of a renewal of the running, afterwards by employing mercury.

poultice on the testicle, in which there was strong extract of Saturn; this being removed, the part well bathed, and wine administered, he recovered after many days; but I have good reason to suppose that his health and powers were much injured. Equal bad consequences would have followed this application on whatever part of the body so much lead had been employed. Therefore in all such cases, I judge it safer first to apply a poultice of oatmeal boiled in a decoction of elder or chamomile flowers, to which spirit or strong beer may be added; this applied warm, operates as a continued fomentation, and is sufficiently bracing in the primary stage of any inflamed, strained parts; all which, should be first cherished in order to restore circulation before any further means to contract or strengthen, were employed; where astringents had been prematurely used, I generally have been obliged to resort to this course, until all fullness had been completely done away.

An hemlock poultice is frequently applied on the breasts of women, and on the testicles of men, in cases where a schirrus is suspected. This for a certain time may have good effects in obtunding the primary causes of the obstructions; but from continuing this narcotic and venenose application too long, I have seen vomiting and other distressing symptoms come on, the effects of all opiates being nearly as strong  
in



in the habit, when applied on the skin, or administered by clyster, as if taken into the stomach. I recollect having been called to a man who applied a plaister of opium over a painful large ulcer on his thigh; from which he fell into such a deadly sleep as not to awake: the cause was not discovered until after death.

A wound should not in general be poulticed, particularly after a considerable loss of blood; this caution is more necessary in wounds of the extremities or scalp, which parts have not so regular a circulation, as the trunk of the body. However, in particular habits where bad consequences might arise from the encouragement of any discharge, especially on the shin \*, which might afterward terminate in a troublesome ulcer, a poultice of oatmeal and water, well boiled, is proper; and if such wound does not soon incline to heal, but rather enlarges, the poultice should be discontinued, and digestive ointments applied; to any of which a small quantity of verdigris may be added, but only occasionally used: this part being thinly covered, does not  
afford

\* I recollect visiting a military man who had every appearance of a dropsy likely to succeed to a jaundice, yet was active and tolerably well, by accident he wounded his shin slightly; and on the application of a plaister in which there was turpentine, the part discharged many quarts of yellow serum, which continued for three months, so as entirely to exhaust his strength.

afford sufficient heat and circulation for quick digestion, consequently does not so regularly advance to healing. Therefore I find it often necessary to apply a few folds of soft paper or oiled cloth over the dressings, or to spread a stiff plaister on coarse linen or leather, which may remain for some days.

An ulcer should not be further poulticed than to refresh and cleanse the part, if foul, preparatory to the use of such ointments as are judged most necessary. First, I must observe that any ulcer, at an early or middle age, in either sex, particularly the male, should be considered as a local\* complaint, except a constitutional chronic cause, or recently acquired contamination, produced it; therefore I should commence by a deterfive ointment to which verdigris is added in proportion to the foulness or ill-conditioned state of the part; such application being a certain detergent and corrector. A few days shall then determine how far any melioration of the juices may be necessary, and as confinement is inconvenient to most people, we might hope that local warmth, aided by moderate pressure on the part, so as not to give pain, would produce healing. This not answering  
our

\* Should the discharge be more in quality than proportioned to the degree of ulceration, we should then search for a sinus, or some constitutional cause, either of which might keep on the ulcer.

our expectation, calomel should be taken; and when the part begins to heal, and flesh suddenly to rise, which is generally too luxuriant where the skin, which is the necessary support, is destroyed, dry lint only, with cerate\* over, or white ointment answers best. Should the part be slow in healing, we may rub the edges with lunar caustic, but not the centre, as it is better that the growth should spring from the sides, and so close the aperture, than that the entire opening should dry up suddenly. We may observe such regular process in the vegetable world; when a tree is wounded, the bark gradually elongates, so as at length to cover the denuded timber; doubtless such management requires longer time; but the repair is more natural and permanent. When the skin round any ulcer becomes inflamed, and that small eruptions† are painful, Goulard's cerate, port-wine, or vegeto water, extinguish this acrimony; and though such applications are improper for the interior of the ulcer, yet they are necessary for the surrounding surface; where any of those appearances offer, it is useful to open the body freely.

*Callus*

\* It is often useful to mix a small quantity of verdigris in the cerate, which answers better than vitriol, as it does not so much oppose granulations of rising sound flesh.

† The skin round issues or setons, is frequently fretted from the sharpness of discharge, and requires similar treatment; for which a wash of oatmeal tea, will sometimes answer.



Callus lips round ulcers are subdued more safely by warmth and moderate pressure, than by any kind of caustic. We have heard of family plaisters healing old sores, when the regular treatment had been ineffectual. They all are composed of such ingredients as become firm when spread, and by close adhesion exclude the air, soften, and disperse. Some of those applications have either verdigris or corrosive sublimate incorporated; and when spread on leather or thick linen, may be wiped and applied repeatedly, which is a material advantage to the poorer orders of mankind, whose wounds on the shins are frequently suffered to get into a callous stationary state, and in the end to become such constitutional drains as not to be either readily or safely restrained. In all such cases, poultices only repel and create an increase of humour in the general system, which might soon terminate fatally.

I recollect that early in my practice I applied a bread and milk poultice, to an ulcer on a boy's ankle; the sore continued stationary for some time, but afterward enlarged, on which I renewed the poultice more frequently but without producing any discharge from the part, the throat soon became ulcerated and putrid, which put a period to his existence. At the same time another patient in the hospital being treated in like manner, became similarly affected, an old practitioner

practitioner observed, that as the increase of disease arose from mismanagement on the part, the remedy must arise from change of application; accordingly he applied a warm dressing, protected by four folds of flannel, kept on by a roller: such heat and support soon produced digestion, and recovery took place; to my great mortification and affliction for the loss of the youth, whose death was certainly occasioned by my unforeseen bad treatment of the part \*.

\* Though the regular management of ulcers in general consists in the encouragement of discharge and correction of the part; yet some times, particularly after fevers, or other indispositions which have reduced the habit; ulcers shall break out, and solids melt so as not to bear the slightest local stimulus: here poultices become necessary; also the mildest ointments, in most of which, lead answers a good end; and then a moderate employment of bark may be absolutely necessary, subject to such restrictions as have been previously taken notice of.

## C H A P. XXXV.

PARALYTIC complaints are of late years more observable than formerly, which may be imputed to hereditary imperfection of the constitution, or early and continued mismanagement of it, and in some cases to both: amongst the higher orders, the truth of this is exemplified in a variety of ways: a voluptuous course of living; late hours anxiously wasted at gaming-tables in heated rooms; variety of wines, and potent liquors indulged in, early in life, while the natural power of the heart requires no such stimulus; immoderate use of tea\* and coffee, particularly when drank too warm; mercury incautiously used; cold bathing, improperly and too long persisted in, either with regard to the season of the year or period of life, with various other causes, all which prematurely waste, by unnecessary excitement†, and thus destroy that  
equilibrium

\* Though from habit we drink strong tea without perceiving any inconvenience, yet if an healthy countryman were to drink a cup of high-flavoured tea very strong, it would affect his nerves in a great degree.

† Made dishes, with rich sauce, and after dinner, liquors, which only reconcile the stomach to its load for the time, but render the power of digestion more weak in future.



equilibrium which should subsist amongst the different parts of the frame, but more particularly between the nervous and muscular fibre, the modes of whose action, so far as regards their effects, are distinguished by the appellation of nervous influence and muscular motion. This derangement in the animal economy generally happens at the periodical change of seasons, but more especially from cold to sudden heat, and where the weight of the atmosphere is suddenly diminished; it is also connected independently of the above-mentioned exciting causes with others, whether mental or corporeal, and usually manifests itself by what is termed a paralytic stroke, or downfal of one side. The first and most general approach of this complaint is foreboded by a numbness in the fingers or foot of the side which is to become enfeebled, and frequently by a loss of hearing in one ear, or a diminution of vision in either eye; in the two latter of which cases, as the symptoms evince the brain to be more engaged than in the former, so the danger is the more urgent. I have already said that the complaint in many instances owes its origin to other causes than what I have enumerated, this may be observed in those who are obliged to work exposed to the influence of noxious vapours of different kinds, such as lead, arsenic, or mercury, which are employed in various manufactures; and it sometimes happens in the purest air and among the most robust constitutions, by a sudden

repression of perspiration from drinking cold weak liquors too copiously while the body is overheated, or from its being exposed to currents of wind; of later years, irregular drinking of spirits resorted to by men of sedentary occupations, whose circulation had become languid and limbs chilled for want of due exercise, from which similar effects are often produced; for such artificial stimuli to enfeebled constitutions only raise the animal powers for a given time, soon after to sink into a state of greater debility. Thus far have we traced the rise of this complaint through many of its most obvious occasional causes; some of which, even in themselves, may be sufficient to produce it. I must however observe, that the principal and radical source of this, as well as many other constitutional maladies, is to be derived from that origin which I have before so often hinted at as the cause of numerous diseases; I mean hereditary acrimony \*. When the complaint in question arises from this last-mentioned source, assistance is not so much within the power of medical aid as in the first cases, where moderate evacuations, suitable regimen, and other remedies answering general indications, may, if timely resorted to, in many instances, restore lost power. With respect to the particular measures in

\* Occult defects which must terminate in future disease, exist in many families, yet are not acknowledged even where they are most manifest.

in such cases, they must vary according to the nature of the patient's constitution, as well as the precise occasional cause, by which the disease had been excited.

In almost every instance of this complaint, we may begin by opening the bowels, which is suddenly effected by a clyster, afterward the taking of Calomel, or some certain mild purgative; but too profuse evacuations by stool are often enfeebling; and as either immature or retrocedent gout, or seeds of other constitutional diseases may be latent, which required natural exertion to throw out in any form what had fallen on the nervous system, much reduction in this or any other manner would be injurious; at the same time allowing the intestines to remain overcharged, would be attended by equal bad consequences; therefore in all such cases, purgatives should be combined with aromatics, which prevent relaxation and debility succeeding to this evacuation.

Having thus removed any fordes which had collected, and thereby taken off in a great measure the oppression from the head, by affording a contrary determination of circulation, we should next employ gentle stimulants, which may be done both externally and internally\*; blisters  
are

\* In all those cases I have experienced bark to do mischief, first by encreasing the appetite, which is generally  
more



are in the first way of the greatest service, provided they be not too large, such having been observed sometimes to be succeeded by a gangrene of the part on which they had been applied; cold draughts too and emetics \* answer a good end; the first having, besides its stimulant powers, the mere permanent operation of a tonic; the second by promoting so general a circulation, is often attended by the best effects. I would not advise the taking away of blood † from the arm, except the patient were of a sanguinary habit, especially if such state had been suddenly formed, or that either sex ‡ had complained of weight in the head or the suppression of any accustomed discharge, either by piles or otherwise; yet even where those symptoms have not existed, I have known advantage to arise from cupping, or the application of leeches

more than natural, next from its restraining most secretions; the defect in some of which being perhaps an original cause of the attack.

\* The particular make and degree of plenitude determines the security of giving any vomit, but except the objections are strong, this measure should be put into execution.

† I have frequently observed the strongest men faint after being blooded, which was generally followed by a convulsion fit.

‡ At a particular period in life, females have been affected with this complaint, though perfectly correct in regimen and conduct; in such instances, reduction is even more dangerous than among males.

leeches on the temples, neither of which should in general be repeated, except new appearances or encrease of bad symptoms presented; as I have observed that when considerable quantities of blood had been taken away; in such cases, by whatever mode or form from any part convulsions have followed, and thus the complaint became more confirmed; agreeable to this we may remark, it is not in the highest state of health and plentitude that such attacks come on, but rather when either sex, particularly the male, begin to fall off and demonstrate from general appearance that the constitution is about to decline; the same is true as to the coming on of the stroke, which usually happens on rising out of the bed, or immediately before dinner, when the stomach is empty and the whole frame rather relaxed; whence may be inferred the danger, or at least hazard of great reduction, by which we should only more enfeeble the weak side; on the other hand, we should not raise or stimulate to such extent as to force more disproportioned action in the stronger parts; therefore if no obvious cause could be detected, we should rest satisfied with the simple means already advised, in addition to the employment of such cordials and aromatic medicines as are usually prescribed.

Having frequently observed this complaint to fall on men of all descriptions, who have in time  
without

without much medical aid become tolerably well, I therefore conceive that the disorder may, in many instances, be not improperly termed a nervous eclipse, which if the constitution were not entirely exhausted, or that this partial failure of power had not come on in consequence of some fundamental cause not to be remedied, it might in due time pass off, and the light of health shine forth again.

I recollect being cotemporary with a young surgeon, who got a paralytic stroke by drinking a great quantity of adulterated white-wine \* in the morning on a very particular occasion: after various means had been ineffectually employed to restore health, he was ordered to Bath, where he continued for an entire year, receiving no further benefit than that of being able to ride on horseback, which exercise he generally took after a breakfast of tea or miserable: but as by accident one morning he could not get either, he contented himself with a large glass of cold milk and water, and the usual solid food: finding himself much refreshed thereby, he repeated the same kind of breakfast on the following morning, and so on regularly for two years, taking at times in the day ice and ripe fruits, but rigidly abstaining from the use of all warm fluids. At length from strict observance of this rule, his  
leg

\* It is probable this wine had been sweetened by a preparation of lead.



leg recovered its strength, and so far was the tone of his nerves restored, as that he was enabled to perform surgical operations with the greatest steadiness. During the period of convalescence, he had frequently tried the cold bath, from which, however, he could not perceive that he had derived any material benefit. In this case, then, we see the obvious superiority which the internal has over the external application of cold; a no less evident advantage have I witnessed from its employment in cases where from long continued mercurial frictions or other tedious reducing processes, the nervous system had been generally relaxed, more especially where the lungs had been delicate, or the patient of a bilious habit. Many spa-waters owe the success of their operation more to the circumstance of their being drank cold than to any specific strengthening power they might be supposed to possess, which is evinced in several cases of females otherwise liable to miscarry, being preserved from such accident merely by the occasional use of cold spring water as a general drink: however in all paralytic \* cases water without a mixture of wine and spices, particularly if the patient was advanced in life, would be hazardous; all of which are more strengthening from being taken cold, provided they are sufficiently potent.

As

\* The younger the subject is, the greater security and probability of success from cold fluids.

As to the treatment of the affected limbs, many experiments have been repeated thereon, some of which are futile, others cruel and derogatory to the character of a wise and humane man; but baths in which mustard-seed and horse-radish have been infused, answer better ends than most other applications; such with frequent frictions to promote general circulation, are what may be most relied on: for though the complaint shews on the limbs, yet may a principal cause of it be traced to the brain, liver, or some interior parts of the nervous system. Electricity may be tried, but with caution; as many smart shocks often further enfeeble, nay sometimes have been known to produce apoplexy; and as for cold-bathing, it should not be ventured on until the shower-bath had been frequently made use of, and even then, after most mature deliberation, particularly if any latent constitutional obstructing cause could be considered in the least degree giving rise to the complaint. In general, persons who are under apprehensions of such attacks should be very sparing in the use of acids, except merely to correct a tendency to putrescence in either fat meat or rich fish. In recent inflammatory fevers, such as we might safely lower, the employment of acids shall answer a good end, by abating the rapidity of motion of the blood, and in this manner inducing perspiration; but in health, when we wish to preserve powers and permanent vigour, they are seldom required; their general effects being,

being, when used much in our diet, to chill, enfeeble, and wither.

In constitutions subject to suppressions or retentions of urine, particularly of the latter, attacks are brought on by drinking acrid claret \* or sour beer, when port wine would not produce such effect; we may therefore reasonably conclude, that the drinking of made-up wines, whether too acrid or rendered more palatable by preparations of lead, with the sedentary life that such practice occasions, contributes more to the encrease of paralytic strokes, than any other causes, hereditary seeds of acrimonial diseases excepted, whose extermination, though we cannot accomplish, yet we may moderate, or in some degree counteract their fatal effects.

I recollect having seen a gentleman with a considerable swelling of the right testicle, occasioned by suppressing a constitutional redness of his nose, which his family had been subject to; this he effected by eating an incredible number of pickled cucumbers, and in proportion as the nose became pale, that part enlarged; at length a fluid was discovered in the right tunica vaginalis, which he was informed ought to be evacuated: this operation he

\* Claret drinkers are generally costive, which state lays a foundation for many complaints.



he thought better to have performed in London. The sack contained half a pint of grumous blood; afterwards from not being able to restrain a further flow of blood through the aperture, it was thought best to perform the operation of castration, when the wound was healed, which with much difficulty was effected, on account of the sanguinary discharge lasting so long: a fullness then appeared in the right side, extending back to the spine, which encreased and became so painful as to put a period to his existence. On opening the body, the right ureter up to the kidney was discovered so large as to contain more than a quart of grumous blood. Had he not taken vinegar, which extinguished the redness of his nose, he might have passed through life as his father did, who lived to a very advanced age, with the same appearance.

From this we may observe the strong repelling or extinguishing power of acids, either externally or internally employed: also, that sanguinary stationary appearances, though producing no discharge, are equally critical to the habit, as suppuration or humour exuding; and though such may abate or vanish, by some natural exertion or alteration in constitution from perhaps better air and a more correct regimen, yet if forced to submit either to topical or internal correction of the  
juices

juices by active measures, it is uncertain where disappointed nature may fix her fatal abode. From this we may also observe the dangerous consequences attending the removal of any excrescence or substance which is either purple or florid, particularly if much attached, and deriving supply from the general circulation, especially in female cases; as such appearances generally evince their arising from constitutional causes, though not obviously to be traced to the original source: such caution is particularly necessary for females who are willing to run any risk for the suppressing of appearances, which when removed are frequently succeeded by obstructions terminating in cancers or morbid emaciation, more fatal and disgusting than natural deformity in almost any shape; and acids\* are generally what are employed for such cruel purposes.

Thus

\* If a wart or any excrescence continues, which requires removal, and be taken off by caustic, the knife or actual cautery, such frequently regenerates, but if destroyed by acid of vitriol, it seldom rises again, except some constitutional cause exists which local measures cannot correct. I must however observe, that though acids should not in general constitute much of our drinks whilst in health, yet in many states of indisposition threatening an hectic in young subjects, particularly males, ripe fruits and subacid liquors answer the best purposes, and in many morbid states, mineral acids are more or less necessary, yet neither should be indiscriminately used as a part of our diet, particularly the latter.

Thus far have I considered the treatment of such cases as are decidedly paralytic, and which are in most instances less within the power of art to remedy, than many other diseases, even where appearances may threaten immediate dissolution. Having so little then to hope, when the disorder is actually formed, our attention should be closely directed to the best possible means of preventing the threatening attack of so dangerous a malady. So soon then as symptoms present foreboding a paralysis (which I have already enumerated) every probable means should immediately be employed to check their progress; our first enquiry should be as to the mode of living, whether it had been voluptuous; and here I must observe, that it is not sufficient, nay even sometimes makes against us that the patient be engaged in the most habitual activity: for if a full course of life be persisted in, especially as to drinking of wine or other potent liquors, without at the same time due attention to the necessity for perspiration and sleep, so as to carry off the redundance of juices created by daily overcharge; such juices so retained, at length become morbid, and thus lay the foundation of numberless complaints; among which may be reckoned the one in question. The plan of treatment then is sufficiently obvious: but as to that part respecting the necessity of retrenchment in living, where particular attention should be paid as well to the quantity as quality of



of food, it may be right to observe, that this should not be done suddenly but very gradually, and persisted in for a considerable length of time. The next object demanding our attention is, whether the patient had been early a valetudinarian, and only preserved from morbid plenitude by frequent, natural, and periodical critical efforts, whether such exertions had been manifested by external appearances or discharges either sanguinary or purulent, particularly from internal parts. Now though in many instances defective, even morbid organization may be preserved by such occasional interposition of natural exerting powers, yet it is only temporary; the patient may be thus as it were reprieved from time to time; at length however the animal powers will fail by repeated excitement; yet as we must consider those excitements whether appearing under the form of disease or local pains in any parts to be constitutional efforts, they should not be suddenly acted on by topical or internal remedies, except for the encrease of perspiration either local or general; this caution then more particularly respects appearances on the face and extremities, when we should rather encourage by warmth, and not unfrequently allow a more generous regimen, it may not be amiss to remark, that in all paralytic threatenings the event is in itself of so serious a nature, as to demand the sacrifice of all our passions and appetites in certain degrees; the necessity

cessity of the former of which has been already shewn, and when we consider the extent of the danger, we shall readily discover the perilous tendency of indulging either our ambition or desire of accumulating wealth to that degree, as to prevent such retirement from worldly occupations as shall secure us still more probably from that impending state of corporal and sometimes mental derangement, which having once taken place, becomes the most hopeless and calamitous state we can experience \*.

\* In most subjects who are not very corpulent and threatened by this malady, I should venture on the use of vomits, from the same reasoning as in epileptic cases, where evidently the fits are put off for many days by the action of vomiting; thus possibly in this instance, by such operation the cloud of forming disease might be so dispersed as not to collect again.

§ I have not taken notice of the mode of treatment where this disorder happens in consequence of an accident of any nature injuring particular nerves, where local management of the injured part only comes into consideration.

## C H A P. XXXVI.

IN early and barbarous ages, when the organization and animal œconomy of the human body were but imperfectly understood, whenever corporal powers had suddenly failed, rigorous measures were uniformly employed, and even in the present times such practice prevails too much, particularly after paralytic strokes; however, most practitioners agree in the propriety of making issues\* or setons, considering either of them at least not injurious; doubtless, in many instances, benefit might be supposed to arise from their discharge, especially where any subject was of a gross habit, and had former appearances of constitutional acrimony, or that the complaint had been preceded by an affection of the head, before such a period in life, as the brain might be supposed to have become impaired and debilitated, either from age or the over employment of mental faculties; but where those latter causes cannot be assigned, issues or setons in the neck, and sometimes the former in the thighs,

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might

\* If an issue or seton be supposed absolutely necessary, it will have a much better effect in the hollow of the neck than in any of the limbs.



might be of use, first from irritation\* for a certain time, afterward by discharge; but should the patient be thin in flesh, or far advanced in life, and that the disorder had succeeded to a debility in any limb, I fear that such waste of juices would rather tend further to enfeeble; for after one month's discharge from an issue or seton, either of which may be compared to a wound forcibly kept open, the succeeding regular progress is for regeneration and completion of lost substance in the part: hence it follows, that either of those drains are limited in their salutary operation; however, if resolved on and made, they should be continued so long as their discharge is acrid, and that the parts do not shew a forward disposition to heal.

## CHAP.

\* Some years since I made an issue in the arm of a young lady, who had an inflammation of long standing in one eye; I introduced a piece of formed lint, with intention to withdraw it on the third day; but being suddenly called into the country, the dressings were not removed until the seventh morning, when an erysipelas extended over the entire arm, likewise a copious discharge by the incision; from which all inflammation of the eye vanished and has not since returned. Equal advantage probably would not have succeeded to a caustic, which destroys the entire substance, consequently some days must pass over before a return of circulation or suppuration could take place, and afterward should it be proper to heal the part, we find much more waste and deformity than from incision.

## C H A P. XXXVII.

IN acute fevers, either produced or excited by recent causes, the lungs or liver are liable early to become engaged; affections of the first are attended by distress in respiration, and though in all feverish attacks it may be necessary to empty the intestines, yet here this end is more safely effected by any purgative which shall only unload the bowels, than by such as might purge profusely, and a repetition of purging \* before further forces had accumulated, might force such an intestinal discharge, as would prevent or at least retard perspiration and expectoration, the latter of which usually terminates most pulmonary attacks; but a practice essentially different is required in all cases where it may be supposed

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that

\* Some eminent practitioners are fond of prescribing scammony, which if sound, often purges profusely, though the quantity is small; others combine different aperient medicines: however, when the disorder is known, the simpler and less in quantity all doses are, the more grateful. In most instances calomel, singly, or combined with aromatic pill, is safe and effectual, at least to commence by; and should the case be much of an inflammatory nature, oil of castor, manna warmed by tincture of senna, or any other lenient purgative may be preferable.

that the biliary secretions had been previously so defective, or suddenly checked, as to occasion an overcharge of the liver, which is generally marked by an heavy sensation in the right side; here then purgatives should immediately be administered, and repeated at reasonable intervals, especially if the stools were bilious† or white, and that the belly felt tumified, or that wind was discharged downward, the eyes yellow or inflamed; the reasons for such a difference in the relative treatment will obviously appear, when we consider that the bileducts are the only channels by which the liver can discharge its secretions into the intestines, whereas the lungs being inclosed in the chest, cannot become freed from oppression‡, except by perspiration and expectoration. However, I must premise, that should a complaint of either the lungs or liver set in with pain, laborious breathing, and other symptoms of inflammation, bloodletting should not be deferred, particularly in attacks on the lungs, as inflammations of those parts are more certainly

† Where hepatic complaints have been of a long continuance, the stools are frequently black and of the consistence of tar, in which cases mercurial, or antimonial purges are absolutely required, milder purgatives not being sufficient to carry off such morbid overcharge.

‡ In all pulmonic attacks, large draughts overcharge the blood, therefore drink should not be taken in such quantities as may be necessary in fevers where the lungs are free.



certainly checked by sudden and copious bleedings, than the same degree of disorder of the liver, the latter not being so much within the circle of circulation as the former; and the cause might exist in the fluids at large, especially where perspiration had suddenly been checked, in consequence of which the consistence of the blood is soon altered, losing its bright colour and becoming viscid, therefore with extreme difficulty circulates through the lungs. Hence in all pulmonic attacks bloodletting should be more generally in contemplation than in hepatic complaints; yet such pain as indicates an inflammation of the liver \* authorizes the taking blood away, though ultimately our best resource should be in purging; and there is not any period in life when bleeding might not with security be put into execution, the quantity to be regulated by the habit of body and age of the patient. I must here remark, that though bloodletting had formerly been too frequently practised, yet at present it is too much omitted, and often with very great injustice. However, though the symptoms may appear to warrant this measure, yet on binding up the arm, if the vessels shall be found

\* If the liver is inflamed we should take away so much blood at once as to expect some revulsion, or removal of the complaint, as bilious habits do not bear a repetition of bloodletting so well as when the complaint is simply pulmonic.

found flaccid\*, muscles lax, the skin soft and clammy, we are authorized even then to desist, provided the breathing be not much oppressed, the same beneficial effects not being so likely to follow from bleeding such subjects, as where the vessels were turgid and muscles strong; and should blood be drawn, if it appears of a dark colour on coming out, and that sudden freedom is perceived in the chest, there is greater security in taking away a reasonable quantity, than when the colour is florid and blood thin, therefore a discretionary power should ever be vested in the hands of the operator, guided by such observations; and in every case gout and general constitutional tendencies in males, also periodical circumstances of the female sex, should be in consideration before we proceed to put this important measure into execution; at the same time it may generally be concluded, that in most cases of recent internal† pain, and probable inflammation of any bowel; independent of the objections

\* When the pulse is hard, taking away of blood seldom injures.

† When any bowel is inflamed or overcharged, the extremities in general become cold and without perspiration; in such cases bleeding is more or less necessary, and we cannot conclude a patient safe until the limbs grow warm and disposed to perspire; but should the attack be attended by cold sweats on the extremities, bloodletting would then be dangerous.

tions I mention, a proper quantity of blood taken away cannot injure, except it were evident, that any reduction of strength, such as would counteract salutary secretions, decided it unsafe to alter nature's course, either by bloodletting, purging, or any other active exertion of art.

I lately attended a mother and daughter who resided in the same house; the first was of a gross morbid habit, threatening a dropsey; the daughter laboured under an inflammation of her lungs, brought on by dancing, and sudden exposure to cold air whilst over-heated, for which she had been let blood copiously, and was afterward perspiring profusely, both of those natural efforts affording evident relief: at this time she used a pectoral mixture with good effect, but through mistake of her servant, was given the drastic purge designed for her mother, which operated so powerfully as entirely to restrain the perspiration and expectoration; she then became so much oppressed as suddenly to expire. A recital of this case may be useful to prove, that though clearing of the intestines is certainly necessary on all feverish attacks, yet purging to such an excess as shall counteract nature's salutary secretions going on, especially if copious, might be fatal. Such caution is particularly necessary for females who from natural laxity of frame and periodical sanguinary depletion, do not bear reduction so well



well as males, and in either sex should any complaint be more epidemic than from a constitutional cause, a reasonable support of natural powers is absolutely required to oppose the morbid invasion of foreign disease: however, though such indulgence is sometimes beneficial, yet the sensations and state of the head in a great degree regulate the quantity of wine or other invigorating liquors\*.

\* In the year 1760, an endemic fever raged in this city, which was fatal to all ranks. Where recovery took place it arose from copious natural purgings about the eleventh day: however, two very ingenious physicians thought best to commence and continue the treatment of this fever, by purging with scammony and other effectual purgatives; in consequence of which practice the heat daily abated, and, after a few days, fever seemed to be extinguished, except that the pulse remained quick and feeble. In this state many were sent into clearer air, where some died by a cough and decline; but such as recovered became more feverish, took to bed, and were supported by an invigorating treatment, when profuse perspirations succeeded by salutary eruptions produced recovery. This recital is not mentioned with any intention to prevent a necessary opening of the bowels; however, such measure should ever be directed by the habit, sex, mode of life, fullness of the body, dryness of the tongue, or any appearance of defective biliary secretions, otherwise we only enfeeble and counteract nature's salutary purpose.

## CHAP. XXXVIII.

THOUGH the art of surgery has furnished such effectual means for restraining bleedings from all vessels which are within our reach, yet sometimes the most expert practitioner may find himself disappointed and embarrassed\* : in all such cases our first consideration should be to decide, whether the blood flowed from an artery or a vein; this may readily be determined by the colour and velocity with which it bursts out; blood from the former being of a bright red, and springing forth with rapidity, but flowing slowly from the latter, and of a darker hue. Should then blood spring from any artery, and cannot be restrained by pressure, styptic or ligature, it then may be expedient in many instances to dilate the wound, after which the artery that before was only half divided, shall contract on being completely

\* When we remark how few there are who bleed to death from external wounds, and the various effectual means we are furnished with for stopping of blood, the surgeon should not be alarmed : this reflection is necessary, as human nature shrinks at a loss of blood in any manner; our feelings are different on a discharge of matter, though ultimately such cases might terminate fatally.

pletely severed; consequently the blood will cease to flow: but should the bleeding come from any vein, particularly if considerable, such practice would be both ineffectual and injurious, as our best chance in such case would arise from the vein being only in part divided; we then should instantly close the aperture as after blood-letting, and apply a pledget of lint wetted with the white of an egg, gum water, or any viscid fluid, which would adhere and preserve the part closed until an union of the vessel took place. Similar success might even be hoped for, where a vein had been entirely cut through, as veins do not contract like arteries when separated. Such an opposite treatment of those different cases shall appear obviously well-founded, when we consider the improbability of restraining a flow of blood from any considerable vein, which must unremittingly be supplied by the circulation, from an anastomosing artery emptying into it; therefore when veins are opened, every means should be employed to restore their former circulation, which can only be accomplished by closing the skin, and effectually securing the part.

I was lately called to assist a young surgeon who had cut an issue on the inside of the leg, in doing of which the saphena vein was opened, every attempt had been made to restrain the blood by  
 filling



filling the apperture with dossils dipped in stiptics, but without effect ; it then occurred to me that the wound should be treated like a large orifice made for bloodletting ; therefore on closing the skin and applying proper dressings, secured by adhesive plaister and a bandage, the bleeding was completely restrained, and the wound soon healed. A recollection of this case may be useful in wounds of the limbs, neck, or any other parts furnished with considerable veins, whether superficial or deep seated. Likewise after the extraction of a tooth, when bleeding can only be restrained by keeping the gum firmly closed between finger and thumb.

## CHAP. XXXIX.

THE situation and magnitude of any recent injury, determines the absolute necessity for immediate bloodletting, which operation, though inconsiderable, is in itself more or less objectionable\* to most people, and frequently counteracts salutary tendencies in particular constitutions: therefore this measure should not be put into execution, except it were absolutely necessary; at the same time the omission of it might in many instances be attended with fatal consequences. However, by observing the following discrimination we shall not often err: after any accident affecting either the head, chest, or lower belly, blood should in general be taken away, and the quantity in proportion to the injury received, habit of body, sex, and age of the patient; but after accidents on any of the extremities, this measure is not always so necessary, except the  
contusion

\* After any accident most people suppose that all sufferings are over, and with reluctance consent to bloodletting, therefore if this operation be unnecessary, it should not from custom be proposed. However, it is well to have it in contemplation on any considerable injury, especially if occasioned by a fall.

contusion be so considerable as to threaten an inflammation, which might terminate in a mortification; however, there are but few cases where proper fomentations shall not answer, and on all accidents, particularly of the first description, an open \* state of body is absolutely necessary. The present practice, after most contusions, is locally to employ preparations of lead indiscriminately; no doubt they extinguish inflammation, consequently abate pain, but as their general effects are ultimately to render the parts feeble, we should be cautious not to use them on joints or tendons without a proper addition of spirit, which shall prevent the juices from being chilled by so cold an application as lead, when simply used or too potent, especially when applied over a large surface; the like caution is necessary for the use of vinegar, which in most cases requires a certain proportion of spirit, afterward to be used rather warm; and in all contusions it should be maturely considered, whether emollient fomentations should not precede repellers, or what are stiled strengtheners, however guardedly mixed.

\* Oil of castor, manna, or some lenient purgatives, are less exceptionable in such cases than calomel, or any of the resinous purges.



## CHAP. XL.

A COMPOUND fracture of the leg is in most instances followed by extreme danger, and there are but few cases wherein the surgeon is more embarrassed to decide whether it might not be better immediately to amputate\* a limb, than to abide the risk, first of a mortification, secondly of the patient's becoming hectic, from the repeated formations of matter, much of which must of course be resorbed, consequently colliquative sweats and wasting purgings come on, which

\* When limbs have been shattered by balls or shells at sieges, on board ships, or in battle, the muscles, membranes and tendons, are generally so lacerated and contused, as to endanger the worst of symptoms, independent of any injury done to the bones; therefore in military practice immediate amputations are more necessary and successful than where limbs are fractured by common accidents, to which the laborious class of mankind are so subject. I recollect having been called to a young athletic blacksmith, whose leg had been so fractured as to afford little chance of preserving both life and limb, therefore I immediately amputated; afterward spasms instantly commenced in the muscles of the stump, and were soon succeeded by convulsions, which within twenty-four hours put a period to his life. Had I waited, possibly an amputation might have been safe after proper reduction of the habit, and regular digestion of the part.

which though daily reducing, yet are necessary consequences of an existing and fixed cause.

After then having maturely weighed every circumstance, and tried the practice of instantly amputating the shattered limbs of subjects, who previous to the accident, were perfectly healthy, and having almost constantly failed in success, I at length determined, except in very particular instances, to give up the practice of immediately amputating, and to employ every probable means for preservation of the limb, first by reducing the protruded bones, which if not readily to be effected and preserved in their natural situations, I have sawed off so large a portion as that the remaining ends should be completely hid by the integuments, by which they would be entirely defended from the air, ever inimical to any parts of the human frame never before so exposed. I must likewise observe, that though little pressure as possible should be allowed on the wounded limb, yet it must be steadily supported\*, for if suffered to move or shake, irritation shall be produced  
and

\* A very ancient and long exploded practice was, to roll up the leg and to cut a hole through the roller, so as to admit of daily dressings: and even that bad management succeeded rather better, than by leaving the limb without proper support: however, at present, nothing can answer better than the newly invented tin machines.

and increased, which must renew inflammation and create more fever and discharge.

I have observed, that where matter had lodged on, or was in contact with any injured bone, such discharge became additionally acrid, and though a purging in those cases might reduce the strength, yet restraining of it whilst the juices must become daily more tainted by the bone, would be both difficult and dangerous; therefore, the best to be done under such circumstances, is to support the constitution with proper drinks, part of which shall enter the circulation, though much may run off by the bowels, and actual astringents should be cautiously employed; at this period, acids are much more safe than bark\*, which ought to be given only in cases of extreme debility, merely to assist the stomach, and not to attempt forcibly restraining, what if checked suddenly, might create fresh formations of matter in less favourable parts, or hectic and decline; for we could not expect the habit to be safely acted

\* I have known bark given in the outset, being supposed likely to prevent a mortification, the effects which followed were, increase of inflammation, spasms, livid dry appearances, and death; yet the quantity of bark was increased so long as the wretched patient continued alive, under an idea that he had not taken sufficient of that medicine, so highly injurious in the inflammatory stage of every wound, though too generally supposed to prevent a mortification from any cause.



acted on, whilst any local cause to support fever and discharge existed.

At this time the instinctive appetite generally calls for such drinks and fruits as are sub-acid; and I have always found what is called buttermilk or cyder to answer a good end. But notwithstanding every effort of nature, and exertion of art, if after some weeks, general appearances do not mend, and that the strength be likely to fail, together with the state of the limb becoming daily more unpromising, we are then authorised to amputate, rather than to suffer a patient to sink under a malady, which though latterly in part constitutional, yet was originated and afterward supported, by a local cause.

It should also be well weighed, whether a limb so fractured, could in the end be considered more than a morbid incumbrance or nidus\* for future disease. However, an amputation, whilst any hope remained of preserving a limb, is too serious a measure to be decided on, without the most mature deliberation; and we should always conclude, that life is a much greater object than the preservation of any member.

T CHAP.

\* A decline often takes place from resorption of morbid humour, which is daily created and increased by tainted bones.

## CHAP. XLI.

NO occurrence in practice can be more galling to a surgeon, than after the most accurate management of a fractured thigh, to find the limb both curved and defective in length.

Early in my practice I was called to a young officer, whose fractured thigh, I reduced and bandaged in the usual manner, and on taking him out of bed, after seven weeks, I found the limb four inches shorter than the other: his disappointment was so great as to occasion a resolution of putting a period to his existence. Fearing such rash act might be put into execution, I, with his own consent, procured two able assistants, by whose steady extension the ends of the irregularly united bones were separated; I then placed the thigh on an hollowed board, which reached from the buttock to the heel; at the same time I applied three splints, afterward closed the tapes more firmly than is usual on the first setting of any limb, as by this time there remained little danger of creating inflammation from any reasonable pressure; I still continued the extension for near one hour, until the parts  
became

became entirely fixed: in this state the limb was preserved for twenty-one days, at which time the bones were completely united and of equal length with the other thigh. After this successful experiment, into which I was partly forced, I have ever pursued the following course; first, to remove the bed to a certain distance from the wall, then to take out the head-board, by which the head of the bed shall be left entirely open; this affords the surgeon a power of pulling the patients upward so often as they shall sink down, thereby to prevent the weight of the trunk from pressing on the thighs; I then fix the limb in the best position possible. Here I must observe, that resting a thigh on the side, shall twist and separate the bones; and though in many instances of fractured legs, such position may answer for a certain number of days, yet if the power and action of muscular fibres are not restrained, by moderate pressure on the thigh, their involuntary movements shall certainly disturb the ends of the bones, from the best situation in which they may be placed, therefore I have always found it best to raise the limb rather high, and then to apply a flannel bandage so tight as to compress the parts in some degree; from which at the end of twenty-one days, in an adult, the muscles shall have lost their contractile power, both from confinement, and reduction of the habit by abstinence in diet. At this period a



callus will have covered both ends of the bone, but not being directly opposite to each other, they would require a length of time to become firmly united ; and though whilst in bed, the limb might appear of equal length with the other, yet it is proper to raise the patient on the perfect leg, when any inequality shall instantly be discovered, which if considerable, we should return the person into bed ; and on making a bold, uniform extension, the soft callus will soon give way, and not being susceptible of inflammation, shall quickly unite again : however, the long continued extension, as in the officer's case stated, shall more certainly insure success.

I must however observe, that in young subjects, particularly females, such proceedings may not be necessary ; but even in those cases I should recommend any patient to be taken out of bed and examined whilst we have it in our power to mend the defect.

That there is but little danger from separating bones so soon after union, is evidently proved, from observing that where a bone had been united for a considerable time, afterward by some accident the callus was broken, such disunion is seldom attended by any dangerous consequences ; therefore where the first had failed, we should prefer the second setting, to the mortifying

tifying inconvenience of a short weak limb ; also a further advantage shall be obtained, that by placing the ends of the bone in their natural situation, the callus having so much a shorter distance to extend, shall be completed in one third of the time that would be required, where the bones were suffered to pass each other, consequently a more complete cure would thereby be accomplished.

The following case may serve to prove to what a length of time, after any fracture, this amendment may be made. A young gentleman, whose thigh was fractured by a fall, had it set in the country, and on taking him out of bed, after two months, it was found curved and more than three inches defective in length. When much time had passed in various experiments, on the fourth month, I, at his own request, procured two strong men, who by a steady great extension forced the bones to separate, and brought down the limb, where I confined it by the like management which I have stated in the officer's case ; afterward, on the twenty-first day, he was taken out of bed, and the only slight deformity that appeared, was a remaining part of the former callus, which gives the thigh a fuller appearance than natural, but it is of equal length and strength with the other ; he is one of the quickest walkers in his county, and though it may seem indeli-

cate

cate to mention the name of any patient, yet as it adds to the authenticity of the case, and that I have this gentleman's permission, who is both public-spirited and benevolent, I give it at full length, Mr. Freke, brother to Sir John Freke, Bart. county of Cork, Ireland.

On the whole, when called to a fractured thigh, let it be reduced if possible, and placed in the best position; but if at the end of twenty-one days, or later, it shall be found shorter, we may mend the defect without danger or much pain; insure a serviceable limb, and gain time for the patient.

I must here observe, that after the setting of any bone, the too frequent application of spirits contracts the parts over much, and restrains perspiration, which is absolutely necessary to re-establish regular circulation in any injured limbs.



## CHAP. XLII.

WHEN we observe so many deformed wrists, particularly among females who are advanced in life, a question then naturally arises, to decide from what causes the bones of the radius and ulna when displaced, should so seldom be completely reduced, and preserved in their original situations and forms; whereas most other joints after dislocation and replacing, recover their former appearances and motion. Such failure in success arises from the bones of the wrist simply resting on each other, but not being connected by ball and socket like the humerus, and some other bones of the extremities, slip from their stations after reduction, if not firmly restrained by bandage and pressure: beside, more or less swelling suddenly seems to follow this accident, from the protruded bones having forced out the full soft covering of the inside of the wrist. This appearance deters the surgeon from using effectual measures for reduction, until the supposed inflammation subsides; hence the limb is often suffered to remain a feeble eye-sore for life.

I have

I have been frequently called to accidents of this kind, early in practice, and cannot say that I was always successful. However, some years ago being sent for to a young lady, who six weeks before had fallen from her horse, by which both wrists were dislocated; and though so much time had elapsed, without any effectual efforts being made for reduction, yet as this lady was on the point of marriage, and that the accident took place in company with her intended husband, I proceeded by great extension to bring both bones opposite to each other; but, as they suddenly slipped back, I renewed the extension, and afterward applied two strong splints, rolled up in six folds of flannel, to prevent any dangerous restraint in the circulation: the inside splint was full two inches in breadth, the outside\* not much more than one inch broad, and pressed chiefly on the radius. I made such a difference in their size, to prevent the outside splint from bearing on the end of the ulna, which in its natural position rises higher than the radius. It is to be observed, that as much further advantage was expected from a continuance of pressure,

\* If the outside splint were hollowed to receive the lower end of the ulna, or had a hole cut in it, both splints might be of equal breadth, and made of tin lined well with flannels; after reducing and bandaging I have experienced advantage, by directing the hand to be bent inwards whilst in a sling.

sure, I bound the splints with three tapes, which I could occasionally close tighter, without altering the original mode of bandaging. This measure was necessary, as I feared that the bones could not be sufficiently pressed in by the first attempt so long after the accident, and having observed nurserymen and gardeners to force crooked trees into an upright form by continued pressure, I therefore concluded that those bones might gradually be pressed into so much of their former situations as could not at first be completely effected by any extension, and my intention was completely answered.

Having so seldom been disappointed in success by this \* management, I venture to assert, that the wrist, particularly of a female, who from laxity of frame is more liable to this accident than man, can be replaced in any reasonable time, after such injury as shall have partially or entirely dislocated those bones, which are more exposed to accidents in either sex, than any other joints; as all persons who feel likely to fall, naturally extend their hands to defend themselves.

The

\* After dislocations of the ankle, the part seldom recovers either its former strength, motion, or shape; and though the bone, whilst a patient lies in bed, seems to remain in its proper place, yet it soon alters when put to use. I am certain that much advantage would arise from early and more continued pressure on that part than is generally employed, proper care being taken not to inflame or excoriate, which may be prevented by flannel.



The following case may serve to prove at what distance of time after dislocation, a bone may be reduced: Mr. Knott, an Irish Barrister, fell from an eminence when at Oxford College, by which his shoulder had been much hurt, but supposed not dislocated; the arm soon began to waste, for which blisters were applied, and various other means employed without effect. When he returned to Dublin, five years after the accident, on examination, and finding that he could neither raise the arm, nor bring his elbow to the side, I proposed making an attempt to reduce the bone, which was evidently in the axilla; accordingly having procured able assistants\*, I proceeded in the usual manner, and pushed the humerus into the socket, which by this time had been entirely filled up, as I could hear the bone grind when returned into the cavity. I then forced the humerus into different motions in order completely to liberate the joint; afterwards took blood away, and ordered proper fomentations. However, a smart fever ensued, which continued for five days, afterward terminated by a profuse perspiration; and his arm soon increased in fullness and strength.

This

\* After much extension, which certainly relaxed the muscles, the business was ultimately effected by the heel of a man upwards of six feet high, and remarkably strong; from which, if the first attempt failed, I should advise the second to be made in a different manner, as soon as possible after the first trial.

This case being so singular, is the only excuse to be made for mentioning the name of any patient. When we reflect that bones forced from their natural joints, shall continue perhaps for life in new situations, pressing on blood-vessels, tendons and nerves, without endangering life, we therefore may reasonably conclude, that no very great danger can arise from reasonable efforts though late, to replace bones which muscular contraction attended by inflammation of membranes, rendered it impossible to effect, in the early stage.

However, though in some instances of fractures, we may be too sudden in our attempts to reduce bones, yet in every case of dislocation, we should make trials for reduction as soon as possible; and though for the present unsuccessful, yet not to despair, but that more success might follow future endeavours. And in order certainly to discover whether any bone be actually dislocated, or the joint only strained, we should minutely examine the form; also extend the part, compare it with the other limb, and offer it into different motions, if not too much contused\*, thereby to arrive at such certainty as to stand clear of

\* When there is great contusion, inflammation may increase to such a degree, and the skin rise into blisters threatening mortification, that any attempts for reduction would be unsafe until those appearances were removed, but afterward not to despair of success from future trials.

of future reproach, both from the patient, and self-conviction, equally mortifying to every practitioner.

And in all doubtful cases, I would recommend to the surgeon not to decide too hastily ; and however tender his feelings may be on other occasions, in those instances not to spare giving so much pain, as shall be necessary to satisfy his judgment. Such admonition may sometimes be useful, as surgeons are often softened by the tears of children, or intimidated by the exclamations of bye-standers, and are shy in giving pain to either sex, especially if in exalted situations. And every operator should consider, that in all dislocations our greatest reliance is on extension, which shall occasion a bone to slip into the joint when least expected ; and a reasonable degree of force used in this manner can seldom injure, particularly when afterward, discutient applications are employed comfortably warm, and the parts closely protected from air.



## C H A P. XLIII.

WE should not hastily decide that youth of either sex were in a confirmed decline, especially if any discharge or secretion, however copious, but not absolutely enfeebling, was going on; from which we might suppose that some vice in the juices at large yet remained, or that an obstructed bowel was not entirely freed, consequently fever and depletion must continue until the salutary purposes of nature were answered\*; therefore in all such doubtful cases, especially

\* When in consequence of a preceding fever, any discharge presents, either by expectoration or abscess, such generally proves critically relevant, though frequently so considerable as to create an alarm; but when fever succeeds to an abscess, or expectoration, previously established, we then have reason to dread a decline.

In all such cases acids are more safe than bark, to correct and restrain discharging humour; which, however, if employed, should first be given by a light infusion, and remittingly for a trial; and during the employment we should always be prepared to administer such purgatives or diaphoretics

especially if not of long standing, we should weigh well, whether it might not be more proper to enjoin further confinement and warmth, in expectation of nature's ends being more completely answered, before we directed any patient to encounter the open air; and, during such uncertain state, the instinctive appetite should be consulted, particularly if sub-acid drinks or ripe fruits were called for. Among the first, buttermilk deserves a preference, in all such cases cordials or wine are not so proper as in certain fevers, where we wish to assist and forward any crisis, when the natural powers are defective; but after a reasonable time passing, should amendment not follow, our best resource shall then be in purer air; and if the lungs are considered tender, the body should be covered with thin flannel; at the same time, if the season should not be rigorous, a certain portion of the former usual cloathing should be removed or lightened, otherwise young subjects may feel themselves over-burthened, our chief aim being only to protect the surface, and temper the heated circulation; always concluding, that pure air is as refreshing to the lungs, as a proper choice of food is

phoretics as either a confined state of bowels, or restrained perspiration required; for, if any natural discharge be suddenly interrupted in its regular course, the substituting effort of nature is doubtful in the event.

is necessary for the stomach. However, should seeds of hereditary acrimony exist, the regimen ought to be more animating, but even then, the enlargement should rather consist in an increase of wine, than by a greater quantity of animal food.



## CHAP. XLIV.

WHERE eruptive diseases arise from constitutional causes, purgatives become necessary, until such time as the eruptions appear completely out; after which a confined state of bowels is more natural, for at least three days, until it may be supposed that any acrimony which was thrown on the skin had either matured or vanished. The stationary continuance of an efflorescence on the surface, generally exhausting constitutional diseases nearly as effectually as actual suppuration. The truth of this is exemplified in fits of the gout, therefore at the period of full protrusion of any eruption, all purgatives should be discontinued, and vinous support administered; but when such eruptions begin to decline, then purging becomes necessary, should it not offer spontaneously. This caution is useful in epidemic eruptive diseases, particularly the small-pox, when an open state of body is necessary during the eruptive fever; but when all eruptions have protruded, we then should desist from the employment of purgatives, in expectation of suppuration. This caution

tion becomes necessary, as it is generally supposed that a stool should be procured daily; doubtless in full health where a certain share of sustenance is taken in, especially by young subjects, such regular evacuation becomes necessary; but in eruptive diseases, particularly of an infectious nature, the practice of continued purging is injurious, and lays a foundation for further fatal disease, either in the lungs or throat, especially in children.

The natural progress of any disorder is by commencement, state, and decline; consequently, the different stages call for a variation in measures; and at particular periods sometimes a discontinuance of every active medicine for a certain space of time. This distinction is principally necessary after inoculation, when open air is unlimitedly prescribed. No doubt as the small-pox is one of the most putrid diseases that we have experienced, and was first produced by a corruption of juices, the greatest benefit may be supposed to accrue from being taken into the air; at the same time that the surface, particularly the extremities, be closely protected from such general exposure. I once saw a youth, who became so chilled and oppressed as suddenly to expire, on being forced into the open air, in cold weather.

Every practitioner must have observed that when small-pox had commenced by perspirations\*, the eruption was distinct; a great portion of the original fomes having exuded by the pores, similar effects are instanced after the bite of a tarantula, the poison of which, we hear is exhausted by such corporal exertion as shall bring on perspiration; I therefore would recommend close covering whilst in open air; and if the limbs become chilled, or respiration oppressed in consequence of exposure, the subject should be brought to a fire; afterward if not relieved, to be immersed in a warm bath, and not again to encounter cold. This observation is at present necessary, as when any material alteration in the treatment of disorders is supposed beneficial, such is generally carried to an extreme; particularly where female influence prevails, which must happen in most infantile diseases. No doubt, excess of heat is more dangerous than a great degree of cold, but neither should be encountered to an extreme.

A medical gentleman, who had long resided in Barbadoes informed me, that few of the negroes died immediately by inoculation; but from a necessity of exposure to the air, they

\* Though a natural perspiration is salutary, yet nothing should be given to force this secretion, where any feverish attack may be expected to terminate by eruptions.



they were mostly affected by swellings and collections of matter for years. Therefore, from long experience, I should recommend it to a young practitioner, to weigh well the nature of every disorder, before he sits down to prescribe a medicine, or adopt any practice, however general, especially if not long established, or that different modes had formerly been pursued.

Exceptions also may reasonably be made to the indiscriminate employment of blisters, which though beneficial at the commencement of some fevers; and toward the expected termination, especially if tardy; yet during the intermediate days, they agitate, distress, and derange the regular course of nature. However, there are some inflammatory cases, particularly when the lungs continue engaged, that further blistering may be necessary: likewise in cases of torpor requiring an increase of stimulus. But as energetic measures are chiefly to substitute or forward defective secretions, and that blisters are the most active means with which we are acquainted, their employment should be limited; for though art may assist, yet natural efforts produce and complete recoveries, or removal of most diseases attended by fever. A blister between the shoulders frequently assists in dispersing inflammation from the glands of the throat, yet those parts seldom subside until either a perspiration or suppuration takes place.

A practice

A practice at present too prevalent in this complaint, is to apply a blister under the chin, by which inflammation is often removed; but the parotid glands are frequently so irritated by such a local stimulus as to become obstructed, and ultimately diseased.

I now visit a lady, one of whose parotid glands is completely schirrus by the irritation of repeated blisters for a periodical inflamed throat. A mention of this melancholy case is more necessary, as blisters are every day applied on those parts. There is equal impropriety in the too early and continued use of tartar emetic or James's powder to force perspiration in fevers: such practice shall answer among the labouring classes, whose blood is derived from vegetable food, and becomes strong by constant hard labour. In such, daily perspiration, whilst the limbs are in action, is partly constitutional; therefore when suddenly checked, the sooner that it is restored, the less danger of fever forming. But in subjects of a different description, a more gradual process should be pursued; for though the human body shall survive much abuse, yet active steps to force nature never should be put into execution except on such occasions as the regular procedure would probably have been ineffectual, and that life was evidently endangered by delay.

THE END.











